DOCUMENT RESUME

ED 314 722 CS 009 901

AUTHOR	Hayes, Bernard L., Ed.; Camperell, Kay, Ed.
TITLE	Reading Researchers, Policymakers, and Practitioners. Yearbook of the American Reading Forum, Volume IX, 1989.
INSTITUTION	American Reading Forum.
REPORT NO	ISBN-0895-3562
PUB DATE	89
NOTE	162p.; For the eighth yearbook, see ED 300 791.
PUB TYPE	Collected Works - Conference Proceedings (021) -- Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	Educational Policy; Educational Researchers; Elementary Secondary Education; Policy Formation; Politics of Education; *Reading Instruction; Reading Programs; *Reading Research; *Reading Teachers; Remedial Reading; School Administration
IDENTIFIERS	Practitioner Involvement (Research); Research Integration

ABSTRACT

Articles in this yearbook address the problems associated with how reading research informs practice. Articles, listed with their authors, are as follows: (1) "Reading Research into Policy and Practice: Practitioner's Viewpoint" (Deborah L. Thompson); (2) "Michigan's Reading Program: A Decade of Change" (Elaine M. Weber); (3) "What Practitioners Can Tell Reading Researchers about Content Reading Instruction" (Richard J. Telfer and others); (4) "Research to Impact Practitioners: Teaching Concepts to At-Risk Children" (Beth S. Wise and Judy C. Shaver); (5) "The Practice of Reading Politics: Effects on Children with Learning Problems" (Richard H. Bloomer and Kay A. Norlander); (6) "Conducting Collaborative Research: Teachers, Researchers and Observers Talk about What They Do" (Terry Bullock and Chester Laine); (7) "A Cooperative School Reading Plan: Developing Collaborative Relationships" (Marino C. Alvarez); (8) "Transaction and Interaction with Children's Literature: Direction of Policy" (Mary M. Brittain and others); (9) "Enhancing Students' Independent Learning and Text Comprehension with a Verbally Rehearsed Composing Strategy" (Victoria Risko and Alice Patterson); (10) "Teaching Reading Comprehension: Direct Instruction Revisited" (Thomas Cloer, Jr.); (11) "College Level Developmental Programs: Policy and Instructional Issues" (Louise M. Tomlinson); (12) "An Analysis of Reading Textbooks Used at the College Level" (Patricia K. Smith); (13) "Toward a Caring Reading Curriculum" (Timothy V. Rasinski); (14) "A Historical Perspective on Remedial Reading" (George S. Spache); (15) "Translating Knowledge into Practice: No Teacher, No Method, No Guru" (William Blanton and others); (16) "Three Apocalyptic Horsemen" (Wayne Otto); (17) "Developing Professional Teachers: Encouraging Change and Inquiry" (Bernard L. Hayes); (18) "Caution! Constraints on Translating Research into Practice" (Kay Camperell); and (19) "Developing a Tolerance for Ambiguity" (Mary F. Heller). (MG)

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AMERICAN READING FORUM

1989, VOLUME IX

Editors

Bernard L. Hayes and Kay Camperell
Utah State University

Publication made possible in part by support from Utah State University, College of Education.

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ISBN: 0895-3562

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Subscriptions to the American Reading Forum Yearbook are $20 per year; back issues are $5. Checks should be made payable to the American Reading Forum. Subscription request and all related correspondence should be sent to Bernie Hayes, Co-Editor, American Reading Forum Yearbook, Department of Elementary Education, Utah State University, Logan, Utah 84322.

(ISSN 0895-3562)

From the Editors

Volume IX of the American Reading Forum Yearbook contains papers which have been recommended by the Editorial Advisory Board from those submitted by authors who presented at the 1988 Annual Conference in Sarasota, Florida. Papers from general meetings, problems courts, forums and a range of sessions have been arranged to represent the variety of exciting ideas explored during the conference.

Reading Researchers-Policymakers-Practitioners is a very appropriate theme for this yearbook. With the current spotlight on education at all political levels, now is the time for the American Reading Forum members to reflect on problems associated with how reading research informs practice. The most serious problems have to do with the role of the policymaker as "filter" between the reading researcher and the practitioner. All too frequently reading research findings are translated into state and local policies that are imposed on teachers who are then held accountable for implementing them.

Such attempts to translate research findings into classroom practice are having a serious impact on practitioners, teacher educators, and reading researchers. School administrators and teachers feel unimportant and controlled in their efforts to shape student cognition. Teacher educators, in turn, feel discouraged in their efforts to shape the cognitions of school administrators and teachers. Reading researchers feel helpless in their efforts to shape the cognitions of policymakers.

The 1989 American Reading Forum Yearbook offers its readers the opportunity to examine many of the challenges presented by the complex interaction between reading researchers, policymakers, and practitioners.

American Reading Forum

Volume IX, 1989

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Reading Research into Policy and Practice: Practitioner's Viewpoint

Deborah L. Thompson

During the past twenty years, significant advances have been made in understanding and describing the reading/writing process. However, the findings do not appear to have a significant influence on classroom teaching practices. While some teachers have incorporated the new knowledge in their teaching, just as many teachers have not been influenced, and they still hold fast to more traditional practices. There are numerous reasons for the gap between theory and practice. Also, "ideas about language (of which reading is a part) and learning are extremely complex, often difficult to implement, and in most instances, require global rather than piecemeal translation" (King, Thompson, Lehr and Chi, 1984). This piecemeal translation, as well as poor dissemination of research findings, has made educational research an anathema to many classroom teachers.

Educational research of the past has been based on the assumption that learning can be divided into numerous quantifiable and testable skills. Teachers were then charged with teaching what was discovered by the researcher. The children were to learn what the teachers taught. No allowances were made for individual teaching/learning styles. Teaching and learning were assumed to rest on an underlying order. Productivity (test scores) would increase in direct proportion to the amount of effort exerted by teachers. Martin (1987) likened this method of pedagogy to that of the agricultural specialist testing the effects of fertilizer on strains of wheat to increase yield. If we examine what is occurring in many of today's classrooms, we see that Martin's analogy is quite appropriate. Teachers (the agricultural specialists) are asked to apply mastery/competency based instruction (the fertilizer) to every child (the strains of wheat) to get better test scores (a higher yield). clearly the proponents of such research have no respect for teachers' ability to judge which instructional approaches work best for their students, and they consider all children to respond in similar fashion to the instruction, totally ignoring individual differences.

Early reading research focused on what should be taught and the ways to access performance (Langer, 1986). The researchers assumed they understood the nature of "good reading and writing," so they devoted their efforts to ways to improve the performances of less successful readers. Teacher input into these research projects was at best minimal. Dissemination of the results was often limited. Researchers would present their findings to their colleagues, and perhaps a few teachers who could wrangle some professional leave time from their school systems. Before the gavel would fall for the final session, publishers would already have incorporated something "new" from a noted authority into their new basal series. Before many practicing teachers had heard or read any research findings, the research would already have been translated into new editions of the reading series. In other words, too much research was prescribed before it was described (Britton, 1987).

Since the early 1970s, there has been a perceptible change in research currents with the advent of psycholinguistics (Pearson, 1984). Breakthroughs have occurred in reading comprehension, most notably miscue research. Both the research and the results have become more comprehensible for and accessible to classroom teachers. Applebee (1987) sees the trend as a natural result of three important factors: a) the increasing popularity of ethnographic research methods; b) the growing respect for the professionalism of teachers; and c) the recent emphasis upon instructional research as a means of solving problems of practice. He argues that if teachers are involved more directly in the research process, then the research itself is more likely to address instructional questions and to solve problems of classroom practice. Woodward (1985) calls this a "collaborative pedagogy," where both teacher and researcher take on new and active roles in the classroom. Similarly, I see this time as a period of collaboration and empowerment.

This is a collaborative period because university research personnel are reaching out to the classroom teachers. I believe that this collaboration forces us (teachers) to determine the method we use and to examine our practices and ask ourselves why we use one particular instructional method over another. When we seek answers to our questions about our teaching practices, we have to get past the narrowly defined boundaries we find ourselves in after our teacher-education training. In seeking new answers to old questions, we become empowered. Empowerment occurs when teachers know or seek to know how children acquire literacy and what classroom practices provide the best atmosphere for full development. Armed with knowledge of children's literacy development, teachers can reject ideas, approaches, and materials that do not promote literacy. The research of collaboration and empowerment is a far cry from the traditional way, where teachers learn about the latest research (as understood and translated by central-office personnel) from in-house memos.

The current research trend also includes a cooperative working relationship among teachers, researchers, and administrators. There is personal involvement by all participants. In this cooperative atmosphere, teachers have taken bold steps to study literacy development in their own classrooms, thus becoming members of the very research community they used to shun. National organizations offer teacher/-researcher grants. Many local school systems have money available for classroom/action research.

Perhaps the most exciting evidence of this collaboration/empowerment is the emergence of a whole-language curriculum. Numerous teacher/researchers have worked to develop viable curricular alternatives to traditional instruction. Many texts, such as Newman's *Whole Language: Theory in Use* or Newkirk and Atwell's *Understanding Writing*, showcase the collaboration between the university and classroom teachers. In these volumes, teachers reflect on their understandings of reading and writing and the relationships between theory and practice (Newman, 1985). Teachers are in the natural settings of their classrooms rather than the "context stripped" laboratories of old (Newkirk & Atwell, 1985). Teacher/researchers are investigating methods for building background knowledge, for extending literacy, and for making the reading/writing connection.

There are perceptible changes even at conferences. While there are still those teachers who surround the basal publishers' displays, more are visiting the publishers who have professional books presenting the research on the reading/writing process. Teachers are visiting the children's book divisions of the same publishers who publish their basal readers. Attendance is up at conference research sessions, especially those explaining whole-language-/or literature-based reading programs. However, there is still a downside to this great learning and growing process: many teachers and principals are still not keeping up with the research.

In many segments of the country, a siege mentality pervades the profession. We affect an "us versus the academics" attitude. We have circled the wagons and adhere to those teaching methods we feel most comfortable with, whether these methods are best for our students or not. Because of this siege mentality, certain classroom practices that contradict what is known about how children learn are still used. Unfortunately these practices are used most frequently with children who benefit least from these traditional methods, those at risk of failure. For example, pullout reading programs are still used, yet sufficient evidence reveals that children in these programs get less reading and more meaningless worksheets and skillsheets (Allington, 1988). Despite evidence that reading is not a sequential subject having numerous discrete skills (Rosenshine, 1980), teachers are still mandated to teach/test for mastery of specific skills. Despite evidence that workbooks are poorly integrated with the reading lessons they accompany, require a low level of reading, and are not well developed, school systems are still requiring their teachers use these workbooks, skillsheets and ditto masters. Durkin (1979) has shown that we tend to skip the comprehension activities in the basal manuals for the lower level questioning activities. Clearly it is hard to overcome years of skepticism toward research that still exists among classroom teachers.

What can be done about this failure of research to make an impact on teaching practices? First, there has to be change in how we train our teachers. As a preservice teacher, I did not have a single course to help me synthesize reading/writing research. Instead I learned how to make colorful bulletin boards and board games, or how to make my lessons follow Bloom's taxonomy. That was fifteen years ago, but some teacher-training programs still emphasize those aspects. Many teacher-education programs "sow seeds of complacency" toward any research. We are much more interested in well structured lesson plans than the theoretical support for the reading lessons taught from those plans. There should be less emphasis on making colorful bulletin boards and board games and more emphasis on understanding what language processes children use as they play the board games. Student/professor collaborative activity should be required each year of a preservice teacher's training. This also makes it incumbent upon university personnel to reach out to the school systems in their area for more collaboration.

University professors should play a stronger role in training preservice teachers. In some major universities, a preservice teacher may be able to complete four years without ever having had contact with a university professor. All of their contacts would have been with graduate teaching assistants, many of whom are busy formulating or reformulating their philosophies because when they were in training they were not exposed to much of the new research.

Pearson (1984) states six essentials for an effective collaborative program for helping initiate change in the schools: 1) *Teachers have to want to try something new.* 2) *Teachers have to have at least some administrative support.* I vividly remember being written up for insubordination by my last elementary principal. I asked permission to implement a literature-based reading program in my thirdgrade classroom in place of the basal series being used by the rest of the school. His letter to my superiors suggested that I did not know enough about reading (I had just completed my doctoral studies in reading) to teach reading without the help of the scope and sequence established in the basal series. 3) *The people who are doing the changing—the teachers—have to have a voice in planning for change.* 4) *Services must be delivered at the level of the people doing the changing.* 5) *Change agents have to establish a forum in which teachers can interact with one another on things that matter and in which teachers are rewarded for behaving professionally.* 6) *Change efforts need time.*

All research has some worth, whether we accept the findings or not. If the research causes us to think about what we do in the classroom, it has served a useful purpose. In closing, I would like to paraphrase a description of children's literacy development and apply it to practitioners. Just as children are active participants in their own literacy development, so should we in our own professional development. We must be active participants, hypothesis generators, model builders and seekers of sense (Orasanu, 1986). To not know why we use the teaching methods we use is irresponsible. To be good practitioners, we must be active learners.

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Michigan's Reading Program: A Decade of Change

Elaine M. Weber

In 1980 the Michigan State Board of Education's minimal reading objectives, developed in the early seventies and revised slightly in the mid-seventies, were scheduled for their five-year review. As a one-year veteran serving as the Michigan Department of Education's reading specialist, I already knew the dangers of minimal objectives, especially objectives that described reading in linear strands of isolated skills. Many local districts anxious to achieve respectability on the state's reading assessment test (based on the state's reading objectives) had reduced their reading instruction programs to rote drill on the 26 isolated reading skills. Unfortunately, these rote activities were replacing language-development activities, the reading of real books and other legitimate texts and other appropriate reading instruction. In 1981, a panel of reading educators determined that the basis for the existing objectives was too narrow and needed a major overhaul. This resulted in a statement describing reading which became known as the new definition of reading, or the redefinition of reading. This new view of reading appeared to be a radical departure from the existing definition. In the beginning of this project, a presentation to the state board of education, including the research documentation for the proposed changes in the reading definition, confirmed the perceived radical departure from the existing definitions of reading, of minimal reading, of objectives and of assessment tests.

Support for this new definition came in the form of a position paper comparing the existing and proposed definitions of reading. This was written by Karen Wixson, University of Michigan, and Charles Peters, Oakland Schools, and published by the Michigan Reading Association. A committee of interested practitioners was convened and a reading curriculum-review process was developed. This was considered to be a logical first step in considering a new definition of reading. Preliminary presentations of reading research and of the proposed new definition of reading to audiences of educators across the state brought audible skepticism about any major change in the state assessment test —after all they were comfortably accustomed to the current, unsecured format, and many had in place a procedure for improving the scores. Later, in 1985, a spin-off from the curriculum review process was published—a multicolored, teacher-friendly flipchart that presented the reading research, what teachers needed to know and what it would look like in a classroom.

But the best ally turned out to be from out of state, a document from the U.S. Office of Education that placed the work we had done in Michigan in a national context. *Becoming a Nation of Readers* was our ally from out of state.

A statewide conference was scheduled to share the new decisions teachers would be making with this new definition of reading. Even though it was scheduled to begin on a Sunday afternoon, a capacity 1100 educators registered for the conference and another 200 waited on a list. We had a following of allies—educators willing to risk.

The rest is history for the staff-development curriculum portion of the Michigan program. We continued with focused conferences and ended with a leadership series of conferences that provided training of leaders in 22 one-hour inservice modules. The major outcome of these efforts was about 1700 trainers and, of those, many empowered teachers who have presented to their boards of education the problems of literacy that we face as state—with the expectation that their district consider the literacy problem and embrace a program for staff development.

In September, 1989, Michigan's State of Reading went national, inviting educators from across the nation to a conference. Individuals representing 18 states, a near-capacity audience, participated in a leadership conference that provided presentations by seventeen nationally recognized speakers and training in the inservice modules.

The companion piece to the reading objective is, of course, the state assessment test. From the beginning of the project, the committee developed objectives with an eye toward their accessibility. A contract for the development of the test was awarded to the Michigan Reading Association and a research grant to validate the objectives and assessment test was awarded to the University of Michigan. The earliest conceptions of the test made major departures from known tests of reading comprehension, using real text, both narrative and expository, and real text length. Prior knowledge, later called topic familiarity, was considered.

Finding a way to get a good look at the text was eventually solved by Taffy Taphael, Michigan State University. After considerable effort to write items that reflected the structure of the text had failed, a think-tank session was scheduled. Near the end of the meeting, Taffy suggested that the text be mapped first. Well, that brought new life to the meeting and to the project! Many refinements, including a grid from the map that extended the questions beyond the text, provided the framework for preparing one to write test items on the test. The new test has as its base real text that asks the student to construct meaning and one that examines some variables along the way—prior knowledge, knowledge of reading, strategies and attitudes. The task at the onset of this project was to develop reading objectives that could be assessed with a test based upon an appropriate instructional model for reading. Two piloting years made this look very promising.

So what? Michigan in the past decade has made some major paradigm shifts—in how we teach reading, in how we prepare teachers to teach reading, and in how we test reading statewide. Meanwhile our state has changed.

In July of 1988, more people were employed in the fast-food industry than in manufacturing. Jobs paying above middle-class salaries once readily available to anyone who survived high school now demand higher literacy and academic skills. Although accountability measures contrived during the seventies to restore the community's faith in schools continue to show progress, the newspapers, television documentaries, and weekly and monthly magazines scream of discontent by universities, armed forces, manufacturing and other employing agencies with the "products of the public schools."

In October, 1989, the final chapter of the Michigan Reading Project will be written—full implementation of the statewide revised reading test, the work of nearly a decade. The challenge that began as an effort to develop a more appropriate set of reading objectives reflected in a revised reading test must continue. The stakes, however, have changed. We face a school population in which the majority of students are coming from the lowest levels of incomes and education. Every day in America forty teenagers give birth to their third child. The mismatch of employment skills and employee skills caused the latest automobile plant opening to search 96,000 applicants to find 3,400 employees. Every university, college, and other institutions of higher education has incorporated remedial, no-credit courses for incoming students.

The new challenge facing schools in Michigan is not how to implement the Michigan Educational Assessment Program's revised reading test but how to plan for the changes in the needs of the incoming students and the changing literacy demands upon their exit—a challenge that should keep Michigan educators well occupied over the next decade.

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What Practitioners Can Tell Reading Researchers about Content Reading Instruction

Richard J. Tefler, Robert E. Jennings, and Reed Mottley

Much has been written about the difference between what is recommended in content reading classes and what is practiced in the classroom by content area teachers. Policymakers, practitioners, and researchers seem to be responding in quite different ways. Policymakers in many states have mandated courses in content reading for all prospective secondary school teachers, seeing this strategy as a way to change teaching practices, while practitioners seem to be resisting content reading instruction (Ratekin, Simpson, Alvermann, & Dishner, 1985). That is, they don't seem to be using the techniques suggested in textbooks and classes. Many researchers (Ratekin, et al., 1985; Gehrke, Schaefer, & Schlick, 1982; Smith & Feathers, 1983; Rieck, 1977) have identified a wide disparity between the recommendations in content area reading textbooks (and classes) and the actual teaching practices used in content area classrooms. Suggestions made by reading authorities are often ignored or overshadowed by other considerations.

Speculation as to why teachers resist content reading instruction has centered on a mismatch between what is presented in content reading classes and the reality of the classroom (Ratekin, et al., 1985; Patberg, Dewitz, & Henning, 1984). Some of the researchers have suggested ways of addressing these concerns, particularly the concerns of practicing teachers. To a large measure, these suggestions depend on the teacher trainers' recognition of and sensitivity to the realities of the classroom, seeking to change either which strategies are taught or in how they are taught.

This study takes a different look at the question of the connection between what is recommended in content reading methods courses and what is actually used in content classrooms. The approach is different in two ways. First, this study centers on recent content reading graduates, so that the pedagogy of content reading instruction is fresh and is known. The "resistance" to content reading instruction may be found less in beginning teachers, for whom content reading instruction has been a given, as opposed to a more experienced teachers who did not take content reading methods courses as they began their careers. The results anticipated by policymakers may be seen in beginning teachers. Second, teachers in this study are asked to give their reasons for use or nonuse of specific strategies. If changes need to be made in the way content reading methods are presented, the actual reasons given by practicing teachers may be more valuable than the speculations of researchers.

Methods

The subjects for this study consisted of 30 teachers selected at random from a pool of recent graduates of three universities: one southern, one northern, and one central. The pool consisted of all those who were graduated since 1985 with certification in secondary education and who also took a content reading methods course at one of the universities.

The selected teachers were asked to participate in a personal interview about the teaching strategies (specifically the content reading strategies) they use. Although we had intended to conduct all the interviews face to face because many of the teachers were quite distant from the campuses, most of the interviews were conducted by phone. The interviews were structured in two parts. The first part of the interview centered on two questions: (a) How do you go about teaching in your subject area? and (b) What do you do to help your students read more effectively? The researchers listened to the responses, and notes, and used follow-up questions to try to get the teachers to elaborate upon their answers. In the second part of the interview, the teachers were asked to look at (or listen to) a list of twenty content reading strategies (See Appendix) and to indicate on a six-point Likert-type scale (from 0 = *never* to 6 = *very frequently*) how often they used each of the strategies. They were then encouraged to explain their use of the strategies, including reasons for using or for not using specific strategies.

Data Analysis

Four types of information were gained in the interviews: (a) descriptions of how the teachers taught their subjects, (b) descriptions of how the teachers helped students read more effectively, (c) numerical responses to the 20-item questionnaire, and (d) teachers' reasons for using or not using the various strategies. The information from the interviews was analyzed in several ways. The written protocols containing teachers' responses to Question 1 (about how they teach their subjects) were read and categorized. In order to do the categorization, the three basic categories outlined by Ratekin et al. (1985) were subdivided so that a total of eight subcategories were identified. Their first category (1), Organizational Settings and Instructional Methods, was divided into (a) Other Than Whole Group and (b) Other Than Lecture. The second category (2), Inferred Instructional Purposes, was divided into (a) Activities for Readiness, (b) Activities for Acquisition of Information, and (c) Activities for Internalization of Information. The third category (3), Instructional Resources, was divided into (a) Using More than a Single Text, (b) Expecting Reading Outside of Class, and (c) Using Adjunct Aids. Two raters independently judged the responses of each teacher, to see whether the teacher had mentioned activities in any or all of the eight subcategories. The raters' independent judgments were in agreement on approximately 81% of the responses. Where there was initial disagreement, the items were discussed and a categorization was determined. A summary of the categorized responses of teachers is seen in Table 1. According to the explanations given by the 30 teachers in this survey, they most commonly provide for activities other than lecture (1b) and provide activities for acquisition of information (2b). The fewest teachers mentioned using materials other than a single text (3a), expecting students to read outside of class (3b), using adjunct aids (3c), or using other than the whole group (1a).

A separate categorization, using the same categories, was done for the responses to Question 2 (about how they help students read more effectively). Teachers mentioned acquisition of information (2b) most. Readiness (2a), other than lecture (1b), and internalization of concepts (2c) were also mentioned often (See Table 2).

The responses from both Question 1 and Question 2 were combined to provide a total number who mentioned each topic in responding to either of the questions. Four subcategories (1b, 2a, 2b, 2c) were the highest (See Table 3.). Readiness (2a) and internalization of concepts (2c) increased the most.

Table 1

Number of Teachers Describing Eight Types of Activities in Response to Question 1

		Yes	No
1.	Variety of Organizational Settings and Methods		
	a. Other than Whole Group	6	24
	b. Other than Lecture	24	6
2.	Activities for		
	a. Readiness	13	17
	b. Acquisition of Information	26	4
	c. Internalization of Concepts	17	13
3.	Variety of Instructional Resources		
	a. More than One Text	4	26
	b. Reading outside of Class	3	27
	c. Adjunct Aids	6	24

Table 2

Number of Teachers Describing Eight Types of Activities in Response to Question 2

		Yes	No
1.	Variety of Organizational Settings and Methods		
	a. Other than Whole Group	5	25
	b. Other than Lecture	13	17
2.	Activities for		
	a. Readiness	13	17
	b. Acquisition of Information	29	1
	c. Internalization of Concepts	12	18
3.	Variety of Instructional Resources		
	a. More than One Text	6	24
	b. Reading outside of Class	0	30
	c. Adjunct Aids	4	26

Table 3

Number of Teachers Describing Eight Types of Activities in Response to Either Question 1 or Question 2

	Yes	No
1. Variety of Organizational Settings and Methods		
a. Other than Whole Group	9	21
b. Other than Lecture	24	6
2. Activities for		
a. Readiness	19	11
b. Acquisition of Information	30	0
c. Internalization of Concepts	22	8
3. Variety of Instructional Resources		
a. More than One Text	9	21
b. Reading outside of Class	3	27
c. Adjunct Aids	4	26

The 20-item questionnaire was analyzed first by computing average (mean) scores for each item. Table 4 shows the mean scores for each of the twenty items. For the 30 teachers the highest mean scores were on items 5 (vocabulary development activities), 9 (prereading discussion and concept development), 11 (study strategies), and 19 (supplemental materials). The lowest scores were on items 1 (magic squares), 2 (word sorts), 6 (three-level guides), and 17 (anticipation guides).

Next, the reasons given for the responses to the 20-item questionnaire were categorized. Two separate categorization systems were set up, based on the discussion by Ratekin et al. (1985), to determine some reasons why teachers might use or not use content reading strategies. The first categorization was of reasons teachers gave *for using* various practices. Four categories were established: (1) the practice fits with my subject area, (2) the practice helps students learn, (3) the practice provides for variety or increased interest, and (4) no reason was stated. As before, two individuals independently categorized the responses. The raters were in agreement on approximately 85% of the responses. All differences in rating were resolved. The percentages of responses in each of the four categories (of those who used the practice) can be seen in Table 5.

Table 4

Mean Scores on 20-Item Content Reading Teaching Strategy Questionnaire

	Item	Score
1	Magic Squares	1.3
2	Word Sorts	2.1
3	Word Puzzles	2.6
4	Analogies	3.1
5	Vocabulary Development Activities	4.0
6	Three-Level Guides	1.2
7	Other Study Guides	3.2
8	PreReading Questioning	3.4
9	PreReading Concept Development	3.9
10	Structured Overviews	2.7
11	Study Strategies	3.7
12	Small-Group Activities	2.8
13	Individual or Group Projects	3.0
14	Allowing Class Time for Reading	3.4
15	Time Management	2.9
16	Brainstorming	2.9
17	Anticipation Guides	2.0
18	Preparation of AV Materials	3.1
19	Supplemental Materials	3.9
20	Higher-Level Questions	3.3

(0=never, 1=very infrequently, 2=infrequently, 3=occasionally, 4= frequently, 5=very frequently)

Table 5

Percentages of Teachers Giving Each of Four Reasons for Using Specific Teaching Practices

It Fits With The Content	It Helps Students Learn	It Provides for Variety/Interest	No Reason Stated
23.7	31.2	4.3	40.8
(89)	(117)	(16)	(153)

The second categorization was of reasons teachers gave for *not using* various practices. The percentages of responses (of those who infrequently or never used the practices) are shown in Table 6.

In addition to responding to the questions and the questionnaires, many of the teachers volunteered information about what would help them to use various strategies more often and more effectively. As an example, many teachers indicated that they had not had enough time in the content reading class to practice the activity, so they did not feel comfortable using it.

Table 6

Percentage of Teachers Giving Each of Four Reasons for Not Using Specific Teaching Practices

Does Not Fit With The Content	Does Not Fit The Way I Teach	Do Not Remember	No Reason Stated
9.7	25.4	8.2	56.8
(18)	(47)	(15)	(105)

Discussion

The results of this study give several different pictures of content reading teaching practices. First, the activities mentioned most often by teachers were relatively traditional activities. In response to both Question 1 and Question 2, teachers responses focused on presenting information and helping students to internalize that information. Although most teachers mentioned some type of instruction other than lecture, typically they referred to whole-class discussion or individual reading rather than group work, cooperative projects, or innovative classroom arrangements. The fact that the responses to Question 2 differed very little from those to Question 1 suggests that even when cued to focus on reading, most teachers apparently still saw as their role that of helping students acquire information.

Second, teachers' reasons for using various practices were very much focused on their perceptions of their subjects and of how students learned. Of those who gave reasons, nearly 53 percent gave reasons that focused on how students learn. An additional 40 percent stressed how the strategies fit with the subjects. These teachers seem to be motivated by their understanding both of what they are teaching and of how students learn.

Third, teachers' reasons for not using various practices centered on a perception that the practices didn't fit with the way they taught (59.5% of those giving reasons for not using various practices). Often these reasons included such comments as "I don't feel comfortable with the activity" or "I don't have time to use the activity." Relatively fewer teachers suggested that the practices did not fit with the content or that they did not know or understand the activity.

Fourth, the responses in the interviews and on the questionnaires indicate that the teachers in this study are using many "traditional" activities. That is, they are presenting information and helping students to internalize information. They use lecture and discussion and individual reading. The results indicate that many of the teachers are not using some of the specific activities recommended in methods courses. However, the results also indicate that most of the teachers are teaching vocabulary before reading, working on concept development before reading, teaching study skills, and using supplementary materials. Few of the teachers we interviewed were using "ARAD" (Vacca & Vacca, 1986, p. 346), where they assign, read, answer, and discuss.

Fifth, the activities used most often were those that were more general (e.g., prereading concept development), while more specific activities (e.g., magic squares) were used less often. Accordingly, the more specific activities were the ones where more teachers indicated that they had forgotten about the activity.

The earlier study by Ratekin and his colleagues presented a bleaker picture than was found in the current study. The final line in their article, "Good advice is wasted if it does not fit existing patterns of classroom instruction and cannot, therefore, be used by teachers" (p. 435), seems to imply that teacher educators are in a position of simple maintaining the status quo. While, undeniably, we must recognize existing patterns of classroom instruction, we must also try to improve those existing patterns. Rather than resisting content reading instruction, the teachers in this study accepted the instruction and indicated that they acted upon it. But they adjusted what they learned from their content reading instruction to meet the needs of their students, the demands of the subject, and their own personal teaching styles. As teacher educators, our awareness of the realities of the classroom must be such that we can help teachers adopt and adapt more content reading strategies.

Implications

The results of this study have several implications. First, knowledge of which content reading strategies are used by practicing teachers can be useful in planning content reading methods courses. Those activities that were used by the teachers in this study could be stressed in the methods courses. Presentations of those that were rarely used could be reconsidered, so that they are either omitted or presented more effectively.

Second, goals, time allocation, and emphasis within reading methods courses should be reconsidered. Is the purpose of the content reading methods course to give the students a wide range of activities to use, to give a few strategies to use, or to give a general understanding? In this study, the general understanding seemed stronger than the understanding of specific strategies. Specific individual activities (e.g., anticipation guides) were used or remembered less often than more general concepts (e.g., vocabulary development activities). An alternative approach would be to spend more time on each activity but cover fewer activities. Then students would be sufficiently familiar with the activities to feel comfortable using them. Or the general impression may be enough.

Third, when presenting content reading activities to prospective teachers, teacher educators should be alert to how these activities fit with the prospective teachers' understandings of their subject areas, their understandings of how students learn, and their developing teaching styles. If these factors are not addressed, prospective teachers may reject strategies that do not seem to fit with their perceptions.

In this study, teachers who had taken a preservice content reading methods course were found to be using many of the recommended content reading strategies. By examining which strategies they used and why they used them, we can improve our reading methods courses and achieve our ultimate goal, enhanced student learning.

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Appendix

Teaching Practices

Directions: Indicate the relative frequency with which you use each of the following strategies by circling the appropriate number:

0=never
1=very infrequently
2=infrequently
3=occasionally
4=frequently
5=very frequently

1. Magic Squares (or other matching activities) 0 1 2 3 4 5
2. Word Sorts 0 1 2 3 4 5
3. Word Puzzles 0 1 2 3 4 5
4. Analogies 0 1 2 3 4 5
5. Vocabulary-Development Activities 0 1 2 3 4 5
6. Three-Level Guides or Pattern Guides 0 1 2 3 4 5
7. Other Study Guides 0 1 2 3 4 5
8. PreReading Purpose-Setting Questions 0 1 2 3 4 5
9. PreReading Discussion and Concept Development 0 1 2 3 4 5
10. Structured Overviews and Other Graphic Representations of the Content 0 1 2 3 4 5
11. Study Strategies such as Summary Writing and Notetaking 0 1 2 3 4 5
12. Small Group Work 0 1 2 3 4 5
13. Individual and Group Projects 0 1 2 3 4 5
14. Allowing Time in Class for Reading 0 1 2 3 4 5
15. Time Management 0 1 2 3 4 5
16. Brainstorming 0 1 2 3 4 5
17. Anticipation Guides 0 1 2 3 4 5
18. Preparing Students to View Audio-Visual Materials 0 1 2 3 4 5
19. Using Supplemental Materials (from Other Texts, Newspapers, or Magazines) 0 1 2 3 4 5
20. Asking Mostly Interpretive and Applied Questions 0 1 2 3 4 5

Research to Impact Practitioners: Teaching Concepts to At-Risk Children

Beth S. Wise and Judy C. Shaver

Early childhood educators have long been concerned with the issue of teaching language skills to young children who lack language and concepts (Rupley, 1979). These children are usually unable to meet the expectations of the public school system and eventually drop out of school. Research indicates a high correlation between these at-risk students and minority-group affiliation (Bereiter, 1986).

Local administrators and teachers were included in a research study conducted in two schools in Lake Charles, Louisiana, with at-risk kindergarten children. Louisiana's drop-out rate is one of the highest in the nation. Intervention strategies included the teaching of language skills and concepts to children who had entered school with a serious deficiency in these areas.

Theoretical Framework

Low-achieving readers are often labeled as "language disabled" or "problem readers," implying that something is amiss within the child. Wilson (1985) maintains that in most cases of low achievement in reading, the problem is not within the reader but encountered by the reader. It is the responsibility of the teacher to help the reader overcome the problem.

A conflict often arises between the child's need for consistent and personal support to overcome reading problems and the demands imposed by school systems which build in failure for many children.

Many of these problems tend to stifle motivation and to intensify the cycle of failure in at-risk children. Discrimination, inappropriate materials, and low self-esteem are problems which tend to intensify the cycle of failure in at-risk children.

Conscientious teachers attempting to meet the needs of these children often run into frustrating demands imposed by the school system. Overcrowded classrooms, pressures exerted by accountability, an excess of non-teaching duties, a lack of time to prepare, and inappropriate materials all contribute to an inability to meet the needs of at-risk students. The teacher knows in many cases what should be done but because of varied demands is often unable to meet the needs of the child who seems destined by his lack of language development and of conceptual development to fail.

Research on at-risk students has focused mainly on two intervention strategies to facilitate school performance. The first of these is intervention in the home, which has centered on bringing about change in mother/child interactions during the preschool years. The second strategy centers on intervention in a school situation, either at the preschool level or during early elementary years. Joan Tough (1982) conducted a longitudinal research study of young children from different social-class groups in England. Her findings suggested that programs devoted to building vocabulary, practicing syntactic structures, and using locational prepositions were too limited in scope. She found that the main problem of these at-risk children was not that they generally lacked language (which they did), but that their expectations about using language did not support learning. Her findings suggested that intervention programs should be concerned not only with helping children to become literate but also with developing personal qualities, fostering skills of communication, and generating the ability to think and reflect on experiences. The development and use of language should be the means for the at-risk child to develop self-motivated learning, and this should be accomplished through talking with others (Tough, 1982).

Dale Farran (1982) reported on a longitudinal study in the United States on mother/child interaction patterns during the preschool years. She found that many factors contribute to the school problems of at-risk children—environment, ethnicity, the dominant culture, and the schools themselves. She found that the place for intervention was not in families but in school (Farran, 1982). Research conducted by Snow, Dubber, and DeBlauw (1982) on social class differences in mother's speech suggested that reading to and with children provided the opportunity for novel, complex, and creative use of language.

Lynne Feagans (1982) studied social class differences in children as they relate to school performance. She found that many intervention programs focused on language skills that were not reinforced in the school.

Description of the Study

Based on prior research, this study was designed to achieve the following objectives: 1) to provide the opportunity for language interaction between child and adult; 2) to encourage the development of concepts through concrete experiences, dialogue, and reflective thinking; 3) to assist children in adapting their language to the language of the classroom through the use of trade books providing framework, sequence of events, and new experiences; and 4) to encourage self-motivated learning through positive, successful learning experiences each day.

Sample description and design. Kindergarten students in two high-risk schools in the local parish were tested in September, 1987, using form C of *The Boehm Test of Basic Concepts* (The Psychological Corporation, 1986). Eighteen students were assigned randomly to either the experimental or the control group in each of the four classes making the lowest scores on the test. Experimental-group members received treatment in groups of three for 30 minutes each day. Control group members received no special treatment. A paid program supervisor was in attendance at each school every day to maintain the continuity of the program—setting out materials, collecting the children, making certain volunteer tutors were in place, and substituting for them if necessary. Treatment was administered by trained volunteer tutors trained by the researchers. These were adult volunteers from the community who agreed to give one hour on a specific day each week to the program. Each adult volunteer tutored two different groups of three kindergarten students for 30 minutes each day. This provided interaction between the adult tutor and each at-risk kindergarten child every day all year. During the 30-minute session, the tutor presented basic concepts (over/under, near/far, etc.) for approximately 15 minutes. Concept development began at the concrete level, progressing from relating the concept to the children themselves to the use of concrete objects (flannel board and felt pieces) to the use of pictures to illustrate the concepts. Finally, individual worksheets were used to allow for application of the concept to the printed page. This progression, designed to meet objectives one, two, and four, took place over the eight months of the program.

The remaining fifteen minutes of the tutoring session was spent in reading tradebooks aloud to the children. During this time, new vocabulary words were introduced; concepts being developed were reinforced; story framework, sequence of events, and characters' feelings and experiences were examined; and children were involved in using language through questioning strategies. These activities were designed to meet objectives one, two, three, and four. Members of experimental and control groups were posttested during the first week in May, 1988, using Form D of *The Boehm Test of Basic Concepts* (The Psychological Corporation, 1986). Forms C and D are parallel forms and test the same 50 concepts.

Results of the study. Tests were scored and results recorded, and statistical procedures applied to these results. In testing the hypothesis that the experimental group would show higher posttest scores than the control group, a t-test for significant differences was used. First, entering pre-test scores for each group were compared. Variance was found to be homogeneous. No significant difference in entering pretest scores of the experimental and control groups were found at the .05 level using the pooled variance formula for finding t (Table 1).

The variance of the difference scores of the experimental and control groups was tested. Variance was found to be homogeneous. The pooled variance formula was used to test for differences. A significant difference at the .05 level in the difference scores in favor of the experimental group was found (Table 2).

Table 1

Pretest Scores of Students in Experimental (1) and Control (2) Groups

N_1	N_2	X_1	X_2	s_1	s_2	F	t
28	31	17	20	7.564	5.842	1.295	.227*

*$p<.05$.

A *t*-test was run on the experimental and control group difference scores by schools. A significant difference at the .05 level was found in the difference scores in favor of the experimental groups at each of the two schools (Table 3).

Table 2
Difference Scores Experimental (1) and Control (2) Groups

N_1	N_2	X_1	X_2	s_1	s_2	F	t
28	31	20	17	7.316	5.472	1.337	1.796*

*$p<.05$.

Discussion. Results indicate that the intervention treatment of one adult working with small groups of at-risk kindergarten students every day for 30 minutes is successful in raising these children's understanding of the 50 basic concepts tested in the program.

Table 3
Difference Scores by Schools S(1) S(2) for Experimental (1) and Control (2) Groups

	N_1	N_2	X_1	X_2	s_1	s_2	t
S_1	12	17	21.1	17.2	7.1	5.1	1.707*
S_2	16	14	19.2	16.7	7.5	5.2	.964*

*$p<.05$.

Part of the treatment focused on language and cognitive development (building vocabulary and story structure; developing predictive and problem-solving skills) which was not measured by the posttest. The results of this portion of the treatment will be decided by the analysis of data from reading-achievement scores of these students at the end of their first-grade reading experience. Reading-achievement tests for experimental and control group members were administered in April, 1989. Data have been collected and are being analyzed currently.

Results of this study, along with the strategies employed in the intervention treatment, will be reported to kindergarten teachers through scheduled workshops and inservice presentations. Presentations of findings also will be made to instructors of pre-service teachers.

Implication for Classroom Instruction

Replication of the treatment for this program is feasible in every kindergarten classroom using parents or other volunteers. Treatment is not difficult—it requires only a concern for children and the ability to read aloud. These at-risk children are our future dropouts, as well as our future hope. It is imperative that we invest both time and energy at this level to increase their chances for success in life.

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The Practice of Reading Politics: Effects on Children with Learning Problems

Richard H. Bloomer and Kay A. Norlander

The remarks we are going to make have to do not with the politics of state legislature nor with the politics of school administration but with the politics of those of us in reading instruction and with the subsequent effect these politics have upon children and in turn upon state and local educational politics.

We have come together to discuss the fact that administrators and legislators, most of whom know nothing about teaching reading, develop, on the basis of their combined ignorance, sets of rules, regulations, and laws which interfere with the proper practice of our craft. This is therefore a commentary on the interaction of politics, schools, and the ways children learn.

To understand this phenomenon let us develop two premises.

Premise I

Politics arise from the need for power, the need of one individual or group to prove superiority or authority over others.

A deduction from this premise is that if we did not have ego needs we would not have politics.

Psychology tells us that the strongest needs are compensatory, that is, the greatest need arises in a person's area of greatest weakness.

Therefore: Politics is the mechanism whereby the weak and incompetent seek to control all others and succeed in maintaining incompetence.

This leads us to the second premise concerning political action.

Premise II

Political action must begin in a perceived fault in persons, actions, or situations. You cannot be superior unless you can find flaws in others.

There are two deductions we can make from this:

a. Politics is self-generating. Politics, by virtue of its participants, generates incompetence, which in turn generate faults, which in turn generates needs, which in turn generates political action, which in turn generates politics; and

b. If no fault can be found, no politics will arise.

In recent years the teaching of reading has become highly political; hence much of the above is true of the teaching of reading. Teaching reading was not always political. Let us explore how it became this way.

To accomplish that, we are going to go through a brief history of reading instruction, most of which has been inferred and adapted from Nila Banton-Smith's wonderful volume "American Reading Instruction" (1932).

Politics and the History of Reading

Reading and writing have necessarily developed in concert. Our current system is customarily attributed to the Phoenicians, who, according to history and legend, developed a system which rather than using pictures to represent items as previous writing systems, employed a number of distinctive marks (letters) representing sounds. One could then record these sounds in sequence, and in turn, decode these symbols into spoken language.

Teaching methodology for the first several centuries of our writing/-reading combination was basically straightforward. You taught the prospective reader first how to speak, then you taught the letters, you taught the sounds, you taught the beginning reader how to put them together, and the reader was on his own.

Other language groups such as French, German, and Spanish have all maintained a sound/symbol correspondence. In America our problems stem from the stubbornness of the English-speaking people, who insisted upon keeping phonetically untranscribable and unpronounceable words from Anglo-Saxon and Celtic instead of adopting Norman

French like an orderly conquered people should. In English, in addition, some mysterious operation called the "Great Vowel Shifts" which occurred from about 1400 to about 1750, caused an even further departure from a strict phonemic representation. Of itself, this is not particularly devastating except that some words must necessarily be taught as a whole, or as "sight words". Fundamentally, the language change made the alphabet teaching methodology somewhat inappropriate. Nonetheless, recorded teaching methodology remained the same for nearly four and one half centuries.

Actually, the mid 1600s were a halcyon time in reading methodology, for in 1612 Brinsley described an alphabetic method in his "Ludis Literarius," and in 1625 Commenius generated his *Orbus Pictus*, which is the first picture/word method (at least the first that we know of), and in 1660 Houle wrote what may be the earliest extant methodological text for teacher education.

You will notice that "Orbus Pictus" represents a regression to methodology which had to have been appropriate for Egyptian hieroglyphics and is still appropriate for Chinese ideograph writing. You will also note that in Egypt and in China only a very tiny percentage of the population ever learned to read.

A teacher's manual written by Houle in 1660 includes the following:

> The usual way to begin a child when he is first brought to School is to teach him to know his letters in the Horn-book, where he is made to run over all the letters in the Alphabet or Christ-cross row both foreward and backwards, until he can tell any of them, which is pointed at, and that in the English character. . . . The common way to teach a child to spell is, after he knows the letters of the Alphabet, to initiate him into those few syllables, of one vowel before a consonant, as in *ba, be, bi, bo, bu, etc.*, in the Horn Book, and thence to proceed with him little and little to the bottom of the book, hearing him twice or thrice over till he can say his lesson and then putting him to a new one. . . . After they have got some knowledge of their letters and a smattering of some syllables and words in the horn book, to turn them into the A B C or Primer and therein to make them name the letters, and spell the words, till by often use they can pronounce (at least) the shortest words at sight (Smith, 1934, pp. 34-35).

The alphabet-teaching methodology appears to be fairly straightforward. The problem of English phonetics is surmounted in the Houle methodology by the use of (in English) the alphabet, rather than strict phonetic or phonemic symbols. The alphabet has in our language strong relationship to phonetics, but they are not as clearly related as in many other languages.

We had developed what amounted to the spelling method. You will observe that with two methods of reading instructions available Premise I of our political primer cannot be far behind.

The most famous of these alphabetic methods in America, and one of the earliest, was *The American Spelling Book*, written by Noah Webster in 1798 and known as Webster's *Blue Back Speller*. Webster was a consummate educational politician. His speller was a propaganda mechanism for "The Republic" and for Protestant Virtues, such as "Truth and Industry." In addition the *Blue Back Speller* was part of a grand plan that Webster had to standardize spelling in the English language. Within Webster's *Blue Back Speller* we have all those wonderfully turgid and non-functional rules for attempting to justify the spelling of our language. Webster's dictionary was also an attempt to standardize the language and to re-phoneticize it. Webster was more successful at teaching reading and at describing the phonetics of the language than at modifying the language or the spelling to fit a phonetic scheme. This success was in spite of the fact that the alphabet method is a poor fit with the language.

In the mid 1800s Horace Mann advocated a phonetic method of teaching reading similar to one he had observed in Prussia. and Gideon Thayer described a Phonetic spelling method for American English. The language deviation from strict phonetics presented some problems, but they were readily overcome simply by selecting the pieces of language that fit the phonetics. If you use what we have come to call "phonetically regular" or "phonetically consistent" langauge, it is not difficult to teach an individual to read using the phonetic method. So in the 1850s, we had the modification of old Phoenecian phonetic method and its adaptation to English in the form of the alphabet method. Both of these were quite successful.

The Commenius Orbus Pictus concept was in wide use at that time, in the form of rebuses inserted into text to help children with difficult words.

Let's diverge here into a story. The origin of the story is the preface of a primer published by John Russell Webb in 1846. It appears that this teacher, described as "odd," was reading the morning paper. A little girl climbed on his lap. As the teacher talked to the girl, he pointed to the word cow each time he said it. After several repetitions this little four-year-old girl, not yet in school, said "Oh, that says cow," the teacher then asked her how she knew that, and she says, "I don't know, but I just know it". Our teacher reasoned that if a *child* at four could learn whole words, anybody could.

Teaching by the spelling or by the phonetic method as it was done in the 1800's was a very time consuming process for the teacher, especially since a mastery model was advocated. So the question arose, why not just teach the child words? (You notice that as we changed the teaching stimulus from letters or phonemes to words we also changed the teaching methodology from analysis/synthesis to rote memorization).

This concept of "word recognition" (i.e., "rote word memorization") combined with Commenius' concept of the "picture word" method (i.e., "hieroglyphic method") formed the basis of many famous readers, including the Elson-Gray, "Dick and Jane" series. This began what amounts to a major methodological battle, with the not inconsiderable egos of Horace Mann on the side of phonetics; Webb and Bumstead touting the word method, and Webster pushing the alphabet, and, as seems to be so common in our field, Mr. McGuffy and Gideon Thayer unable to make a decision and attempting to please all sides of the argument.

Here we must introduce our third political premise.

Premise III

If you cannot vanquish your opponent using a valid argument, develop a specious argument you can win.

There is a corollary to this premise: If you have no strength in your argument, make up a supposed weakness in your opponents' position and argue that.

As Bumstead (1840) comments in the introduction to his "My First School Book,"

> In Teaching reading, the general practice has been to begin with the alphabet, and drill the child upon the letters, month after month, until he is supposed to have acquired them. This method, so irksome to both teacher and scholar, is now giving place to another, which experience has proved to be more philosophical, intelligent, pleasant and rapid. It is that of beginning with familiar and easy words, instead of letters. (Smith, 1934, p 86)

Or at a later date, more spiritedly:

> For this reason there is here an exclusion of that chaotic mass of fragments of words, which it has been usual to present to the eyes and ears of children in their first exercises. Such lessons, it is believed, are as unnecessary as they are uninteresting. They convey no thought; they rather teach the children not to think. (Smith, 1934, pp. 87-88)

Prior to this methodological scuffle, reading was assumed to be "good" and little concern was given to the "purpose" of reading. Since the phonetic and alphabet methods were successful in producing "good" readers, the Word Recognition faction developed the argument that the "purpose" of reading was "meaning." Letters and sounds have no meaning; hence they are inappropriate for teaching reading.

The Meaning Argument was extended during the early 1900s and again the 1960s, under the guise of linguistics, to stipulate that phrases or sentences or paragraphs or stories should be the teaching unit since they are the "true" carriers of meaning. The application of these various "methods" was generally catastrophic, and such reading programs were withdrawn from the market. Despite calamitous results when applied in practice, and though little hard evidence of its verity has been collected, the "meaning" argument is still persuasive.

The fact that "meaning" could become a viable argument is in and of itself an exercise of Political premise I. Meaning could not have been considered as important by the early Phoenicians, where speaking and hence some level of understanding was a requisite for reading. However, the power of "educated" persons comes from the rarity of their words and hence the decreased likelihood of conveying meaning. Thus if you use or attempt to teach language which is incomprehensible (a clear exercise of Premise I) and people cannot understand what is being said, you then have every right to complain about "meaning." One has only to peruse the McGuffy Readers or the Blue Back Speller to see clear examples.

A second interesting argument was proffered, again with no basis. Alphabetic and phonetic methods were described as "mechanistic" and "rote" by the whole-word advocates. On the other hand, the Word Recognition approach was described by these same proponents as "flexible" and "meeting the child's needs" in addition to "developing understanding." Again there is no evidence and these assertions are generally accepted as an act of faith. It should be noted here that Bumstead and McGuffy were probably taught to read by an alphabetic or a phonetic method and they seemed to develop some level of "understanding." In any case, these specious arguments and the fact that they prevailed is a testament to the political prowess of not only Webb and Bumstead but also W. S. Gray and A. I. Gates, as well as a host of others.

This argument was supposed to answer the basic question "What is the best beginning reading instructional methodology?" This, of course, was an incorrect question one that has no answer, but a hundred years ago we were not aware of that. Over time the argument rested upon reading for meaning. Letters and sounds are not meaningful; words are. Once the meaning argument is made, the extensions of the argument were not difficult to contrive.

In the early 1900s we had a flurry of methods built upon reading for meaning, much the same as those in the 1960s of the linguistic period. Actually, the two periods in the history of methodologies were not very different. The questions asked were these: If a *word* is meaningful, is not a *phrase* (Sentence Fragment) more meaningful? Is not a *sentence*, a complete idea, the true carrier of meaning and therefore the *meaningful* teaching unit? A sentence is not a fully developed idea. Isn't the true carrier of meaning a *paragraph?* A *story?*

We might say, without the benefit of modern science that these methods using larger teaching units were unsuccessful, both in the 1900s and in the Linguistic Era of the 1960s, because most of the kids didn't learn how to read with them. We were left primarily with the battle of the Phoenecians vs. Word Recognition, so to speak. However the proliferation of the "meaning" argument into its extensions marked the winning of the battle by the "word recognition" group.

The next 30 years were spent in a "mop up" operation by the word-recognition forces, an operation was so successful that by the mid 1930's it was considered unethical to teach by the alphabetic or the phonetic methods. A major force in this mop up operation was Arthur Gates, the first scientist in the reading business. The fruits of this scientific endeavor were reported in a book in which Gates reported the results of an experiment using a word-recognition technique (Gates, 1928).

Basically, Gates compared Macmillan readers he authored with an unusual sentence-phonetic approach. Gates used his own test, which was geared to the MacMillan series and to a word-recognition method. This would be interpreted as test bias today but was unrecognized as such at that time. The results of this and several other tests used by Gates are interesting. There are no tests of significance, but of the 16 comparisons, seven favored the phonetic method, three were equal, and six favored the whole word approach, clearly not a mandate for any approach.

Gates then asks the question "Is Phonetic Training Futile?" and answers, "on the whole it seems to be wasteful of time and effort. . ." (Gates, 1938, p. 101). Gates capitalized upon the idea of rapid responding, and although the number of correct responses for the two groups was about the same, his experimental group attempted more questions (thus a higher error ratio) and hence he argued that faster readers are better readers. This started a real swing in the country toward "speed reading," and in the 1930s almost every child was taught by the word method.

The problem was that using word recognition alone, resulted in greater number of reading failures. It was found that encoding/decoding (sounding out words) was essential for most children to learn to read.

Now, that was embarrassing! After nearly 100 years of attempting to root out the offensive and primitive Phonetic Method from the teaching repertoire, we succeeded, only to find that it was essential. And so, in the 1940s, we developed two pseudosystems of teaching phonetics which did not teach phonetics—that is, a method which attempted to achieve the same ends but did not embarrass us or force us to admit we were wrong. Thus Readiness and Phonics were born.

Readiness at this time period consisted of auditory discrimination, or teaching children how to identify and say the sounds in the language, with little or no visual stimulation, and separately taught visual-discrimination skills, teaching children to identify the shapes of the letters with little or no direct sound correspondence. Note that if one put them together we would have the despised Phonetics, hence "visual discrimination" and "auditory discrimination" were always to be done separately.

The second pseudo-phonetic methodology was phonics, an attempt to teach "letter-sound correspondences" without ever showing the child clearly what it was he/she was to learn. The letter shapes the child was to respond to were always embedded in words or word families. The sounds were derived by charades, telling the child that "that sounds like the first sound in his name" (point to Charlie). Effectively as a group we were severely paranoid about isolating a letter or a sound and particularly about putting these isolated bits together.

The late 1930s through the mid 1950s were devoted to exorcism of phonetics from the literature. Numerous articles appeared describing the difference between phonics and phonetics. Reading persons were admonished never to even mention phonetics. A person who mentioned phonetics was a heretic, and phonics became established as the only way. Phonetics was all right for speech persons, but it was totally inappropriate in reading. Effectively, what we did of course was to make it impossible to use phonetics without being labelled incompetent and irrelevant and thus being cast out from the society of reading teachers.

A few people, Jeanne Chall (1965) is perhaps the most notable, have tried to indicate that our recently invented phonics is less effective than phonetics. But collectively our inability to admit error caused us to develop a convoluted and ineffective method to do what we had been doing more effectively all along. In turn we scourged an effective method from our repertoire.

What we did accomplish in that span of political conflict was to make the phonetic and the alphabetic methodology unavailable to children. That means that if a child would prosper with a phonetic method and not under other methods, that child was prevented from being taught appropriately. By constricting the teacher's methodological repertoire we have manufactured reading problems where none need exist.

Political Effects on Children With Learning Problems

What is our real problem here? We have seemed focused on the wrong question. The question we have been asking since the beginning is "What is the best method for teaching beginning reading?" The question which we might have asked, the question we often talk about but have never really focused on, is "What is the best method for teaching this child?"

This petty internecine political squabble has not only cost us the use of a methodology for some time; it has had a tremendous cost in knowledge. If the scientific energy invested into "My method is better than your method!" were diverted into the question "Which child, which method?" we would be considerably further along.

Unfortunately, we have almost no solid knowledge in this area. School administration still mandates this or that reading series for the whole district. Some teachers have the nerve to try things but as a profession we have no guide for them except to use their viscera. Publishers, whose only criterion is potential sales, will still print anything with no evidence of its strengths or, more particularly, its weaknesses. Furthermore, publishers print everything with an eye to appease every faction.

Let's speculate for a minute. If we develop some knowledge about individual differences in learning, if we develop some knowledge about the different demands different methodologies place on children, we might try to begin to put children and methods together to collect information systematically. We could then effectively ask some questions of youngsters as they enter school and have free rein to develop or use programs which take advantage of the child's strengths and circumvent or correct the child's weaknesses. This means that we should have the option of using a phonetic method, a linguistic method, a phrase method, or a print-to-meaning method, or, indeed, other methods. All of these methods teach some proportion of the children and fail with others.

Whenever a school or a district chooses to only teach by one method, or even by the famous "combination" of methods, which usually is a mishmash, that school system is effectively cutting some children out of success. They cannot succeed because the methodology doesn't fit the way their minds work.

The politics of teaching reading has caused us to attempt to develop a "best" system and to eschew others. Essentially our egos rather than children's welfare have been the dominant force in the acceptance and rejection of methodology. In turn, our egos have often forced us to accept a less effective methodology, with concomitant effects on the quality of children's reading.

We have to now look at this in terms of politics. The politicians and/or administrators set rules because they believe us to be incompetent. If we want to accept as a criterion reading on grade level, we have a large proportion of failure: roughly 30% of our children read below grade level. This is an error rate of thirty percent. We have made mistakes with a third of our children, and that number of mistakes is unacceptable. Some number of these mistakes evolve from our limitations in methodology, imposed by us professionals or directed by legislators, administrators, or committees who usurp the power because of our mistakes. If in fact we were successful, the administrators would have nothing to make rules about.

By choosing to ask the question "Which method is best?" we closed the door to a vast amount of research which has to do with which method is best for this child at this time. And so while we are fighting the war of word recognition vs. phonetics and phonics etc., we have lost sight of, and have missed opportunities to collect, evidence that would allow us to program for children individually. In turn we have left ourselves open to administrative and legislative control.

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Conducting Collaborative Research: Teachers, Researchers and Observers Talk About What They Do

Terry Bullock, Chester Laine, Karen Ford and Ronald Ward

School and college teachers are under siege. There have been an avalanche of recent reports critical of teachers at both levels. Secondary teachers continue to struggle with taxing student loads. Colleges have experienced unprecedented pressure from state legislators to reduce the number of developmental classes. Public frustration about the number of students unable to master the simplest concepts is reflected in the media almost every day. And, both school and college teachers have been deluged with national assessment data on marginal student performance in a wide variety of areas. In the face of these mutual problems, school and college teachers have been examining new possibilities for collaboration. The intent of this paper is to examine one such collaborative relationship.

There is a particular interest in collaborative research which describes reading in content classrooms. Specifically, Holliday (1984) calls science and reading educators to acquaint themselves with each other's theoretical orientations and to engage in collaborative projects. He argues that science educators too frequently dismiss instructional questions related to reading and thus exacerbate the gap between reading research and the teaching of science. Too frequently, however, the college researchers exploit their colleagues in the schools. As Stuart Polansky suggests in *900 Shows a Year*, teachers think of themselves as victims of an entrepreneurial venture contracted by the colleges with the Boards of Education, or as subjects in a research effort in which they see no benefit to themselves (177).

To this end, we have examined the relationships that were developed in a research study examining the quality and quantity of reading in middle school science classrooms. In order to examine the collaborative nature of this relationship, the major participants—university faculty researchers, graduate student observer, and classroom science teacher—have reflected on "What was it like to be involved in this project?" In addition, a brief section about the cultural settings, as well as recommendations for conducting collaborative research are provided.

In our collaboration, we set out to recast that traditional relationship; we sought to involve the teachers in the design, implementation, and analyses of our study; we set out to insure that everyone, including the children in these middle school classrooms, derived some benefit from this collaboration. Although four members of a middle school science department joined three reading educators to determine the amount and type of reading instruction that occurred in their science classrooms, it became an experiment in collaborative research.

Three Perspectives

The Researchers

We wrote proposals, applied for funding, made the initial contacts with administrators and teachers, arranged for the training of the research assistants, and managed the budget. The university and the public schools worked on a number of collaborative research projects over the last few decades. In particular, we were interested in the quantity and quality of reading instruction in middle school science classrooms. Initially, we attended two general meetings of secondary science teachers, administrators and university researchers. The goal was to stimulate some jointly sponsored research projects. The meetings led nowhere, since there were too many agendas and not enough focus as to the type and direction that the joint research might take.

We then decided to pursue a different course of action in order to pursue our research interests. Contact was made with the directors of secondary language arts and science. At our initial meeting, we discussed our research ideas. Our discussion also focused on the perceived benefits of this type of research for the public schools. Since the school district had identified reading in the content areas as a top priority, we felt that we were at the right place at the right time with our proposal.

The next step involved identifying a potential school and science staff that might want to become involved in such a study. In selecting a site we wanted to have a veteran staff of science teachers who would not be intimidated by having observers coming into their classrooms. Additionally, it was important to select a school where there was strong administrative support for this type of research project along with a reading specialist who had been working with the content area teachers. After several meetings with the two supervisors we selected a middle school that met our criteria.

One next step was to meet with the science staff and principal of the identified middle school. This meeting was also attended by the district supervisors for science and language arts. After exchanging pleasantries, we got down to making the case for our research project. We stressed the fact that this was a continuation of prior research conducted in secondary language arts and social studies classrooms. Additionally, we stressed the fact that the observations would be relatively unobtrusive, since the observers would sit in the back of the classroom and that the results would be published in the aggregate. Although we strongly emphasized the fact that these data would in no way be used to evaluate the teachers, there appeared to be skepticism on the part of some of the teachers.

We wanted the teachers to volunteer for the study. This may have been awkward for the teachers since there were two central office administrators and the principal at this meeting. However, one of the five science teachers declined to participate. At this point, the supervisors stated that, if the teachers stayed with the project throughout its entirety, they would each receive a double-beam balance. Potential opportunities for presenting at conferences and writing publications were also mentioned. In fact, all four science teachers did get the balances promised and one teacher participated in making a presentation at a national conference. Fulfilling a final promise, the results of the research were presented to the teachers before they were presented to the administrators.

The Observer

As a graduate student observer, I visited the site once or twice each week for a period of three months. During these visits, I used systematic observation devices, interviews and field notes to collect my data. Besides getting a firsthand experience in data collection, I also learned many valuable lessons regarding the role of a participant observer in a public school setting.

During my many visits to the site, I found myself watching the classroom activities, not as an observer of reading behaviors, but as a supervisor and evaluator of a teacher. Almost unconsciously I found myself evaluating a particular teaching technique or learning strategy. Since the goal of an observer is to collect objective data, I had to constantly remind myself not to record my subjective impressions.

This conscious effort to avoid judgmental filtering was often reinforced through periodic conversations with the classroom teacher. Several times during the project's duration, he would ask, "How am I doing?" My response was always, "I'm not here to observe you; I'm watching the kids." His frequent inquiries helped me to define my role in his classroom.

In retrospect, some additional techniques might have increased the input of the teacher and increased my objectivity. For example, I could have videotaped some of the classroom activities or allowed the teacher to provide some input on my field notes and the videotapes. I look forward to using some of these techniques as a participant observer in future research studies.

The Teacher

I was one of the teachers in the study. I opened my door to outside observers, participated in interviews and allowed my students to be interviewed. My initial reaction was centered around the time factor. Questions arose like how much time will I lose in class? Will I need to do more work to prepare for class? How long and how many times will I be required to stay after school? My colleagues and I also wanted to know if we would receive anything tangible as a result of our cooperation. Finally, there was some fear that the findings might somehow be used by administrators as an evaluation tool.

The initial meetings between the researchers and our staff were instrumental in the success of the project. As we set up the project, we were able to ask questions and this eased a lot of the apprehension and potential misunderstanding.

My classroom is visited quite often, so the presence of an observer was not a disruption. In fact, I have been observed by peer appraisers, student teachers and principals so frequently that I did not feel threatened. The first visit brought some questions from the students but soon they ignored the observer's presence.

When the results were shared with the science teachers, we were surprised by the amount of "down time" caused by interruptions, announcements, and disciplinary actions. Although we expressed concern that the amount of class time given over to these noninstructional activities seemed high, we were assured that the amount of "down time" was comparable to findings in similar studies. On the other hand, we were pleased to receive positive feedback. It was nice to receive some compliments and assurances that we were doing a credible job. The cooperation and sharing of information was excellent. Our science department received some double beam balances and we were made to feel special by the entire process.

The researchers and an observer came to school and presented the findings to us. They were most cordial and even brought some snacks to share as we mulled over the results, most appreciated after a long day in the trenches. I would participate again in such a project and recommend more such joint ventures as they seem to benefit everyone involved.

Collaboration Between Schools and Colleges

In the light of past collaborative efforts, it is tempting to view school/college collaboration in terms of villains and victims. the college faculty use the teachers and students in the schools as guinea pigs in experiments to generate research data, publications, and additional external funding; the teachers and students derive very little from the relationship. However, it appears that these interactions are more complex; both groups are acting in response to the world that they know.

What is the context of the classroom teacher? As Boyer (1986) reminds us, the typical school teacher is confined to her building from 7 in the morning until 4 in the afternoon, every day of the week. She teaches five or six classes a day—25 to 30 class hours per week—with three or four preparations, but only one preparation period and a very brief lunch break. Even within their classrooms, "a welter of routine procedures and outside interruptions" dominate their lives (p. 141). During our observations of these forty-five minute science classes, we watched teachers take attendance, make announcements and do numerous bookkeeping chores. Many of the classes were interrupted two or three times by announcements, assemblies, visitors with messages, and pep rallies. For five or six periods each day, these science teachers managed twenty-five to thirty-five students each class period; noninstructional tasks consumed about one-fifth of this time.

Classroom teachers lack the discretionary time available to college researchers. Given their schedule, it is very unlikely that teachers can play a leadership role in collaborative efforts. They are confined to the building, must follow a very rigorous schedule, and are not able to attend long and numerous planning meetings. The college researchers and school administrators are naturally going to take the lead in seeking outside funding, writing proposals, and designing research studies.

Historically, there is unequal access to financial backing; the schools and colleges do not contribute equally to collaborative projects. The school teachers seldom have a meeting room, secretarial services, office supplies and equipment. These are essential elements in seeking funds and administrating a collaborative project.

"What's in it for me and my students?" This question, so frequently asked by candid teachers, highlights the very different reward systems that exist in schools and colleges. Very little within the world of the teachers encourages them to invest heavily in collaborative projects. High school teachers may be paid a stipend for attending weekend or evening meetings; they may gain some limited "status" from working with neighboring colleges; however, the real rewards available to high school teachers—salary increases, department headships, more and better equipment for the classroom and laboratory, AP classes, teaching seniors—are not based on participation in collaborative efforts with college researchers.

We learned many lessons from this cooperative venture. A collaborative research project requires time. Teachers are cautious about getting involved. It is important to work closely with central administrators and building principals; their cooperation will eventually be necessary and their insight is invaluable in identifying a potential site. It is necessary to frequently check signals with the teachers, to make sure that original agreements are not violated; it is important to keep promises; it is important to report the data to the teachers first; it is essential to deliver on incentives (balance beams, travel opportunities, etc.) and; the data need to be treated with the utmost confidentiality.

The rewards for the college teacher are greater, as long as the collaborative effort leads to publication. Without this promise of possible publication, there is little incentive for an untenured faculty member to undertake such a venture. There is also little incentive for an established researcher to become involved other than to lend the project the status of his or her reputation.

If we, as a profession, are to take collaborative efforts seriously, then we need to look toward new ways of framing these efforts. Below are listed a few ways in which these efforts can be framed to encourage participation on the part of classroom teachers, to provide incentives for classroom teachers and researchers alike, and to develop trust among the collaborating parties.

> —We need to encourage teachers to keep autobiographical and biographical accounts of their participation in such research efforts; they need to reflect on their perspectives. (Traver, 1987)
>
> —Reward systems need to be established that encourage teachers to take an active part in collaborative research projects. These can include equipment and materials for their classrooms and laboratories; opportunities to travel and present at conferences; released time to plan studies, analyze data, and participate in presentations and writing for publication.
>
> —Take time to build trust, communicate with teachers and administrators, allow them to make meaningful contributions to the research.

If these frameworks can be realized, everyone benefits—the teacher has increased awareness about the instruction occurring in his or her classroom and is, therefore, rewarded for this extra effort; the researcher has a greater understanding of the classroom dynamics and can conduct his or her research more effectively; and the observer can feel more relaxed in entering the classroom to collect his or her data.

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A Cooperative School Reading Plan: Developing Collaborative Relationships

Marino C. Alvarez

Individually, state mandates have imposed a "one-best-system" of education and assessment for both teachers and pupils, denying schools the right to decide the best educational plan for their population (Timer & Kirp, 1989; Wise, 1988). Instead of diversified school plans, many administrative decisions have resulted in instruction, curriculum, and policy making being essentially uniform (Goodlad, 1983). Also, witness the number of comprehensive high schools designed by educational leaders who exert urban policy to reorganize rural communities and displace rural cultures and mores. Ellwood Cubberly, in 1914, illustrated this view of an urban school philosophy when he stated that rural schools were in a "state of arrested development. . .controlled largely by rural people, who, too often, do not realize either their own needs or the possibilities of rural education." In other words, it is assumed that what works in an urban educational setting will be functional in a rural school and community.

The focus of this paper is to present a cooperative reading plan (Alvarez, 1981) and a theory of educating (Gowin, 1981-1987) that together are designed to increase academic achievement through meaningful collaborations between faculty, administrators, staff, students, and parents/guardians. If a cooperative reading plan is to succeed, school philosophy must be mutually developed, detailing roles and responsibilities, providing for student interests and needs, and predicated upon a learning theory related to sensible instructional strategies.

Schools are not alike. The needs of one urban school may be quite different from the needs of another or of a rural a or suburban school, even though all may be in one school district. School populations vary in number, abilities, and socioeconomic status. Some schools may have specialized reading personnel and content-area reading programs, while other schools may not have any reading specialists or middle or secondary reading programs.

School personnel need to take inventory and document their success if they are to direct the learning needs and outcomes of their students. A cooperative reading program research-based in a particular school lends itself to the improvement of subject matter dissemination and subsequent student receptiveness and comprehension. If effective change is to be implemented in our schools, students and teachers need to be an integral part of the educational equation.

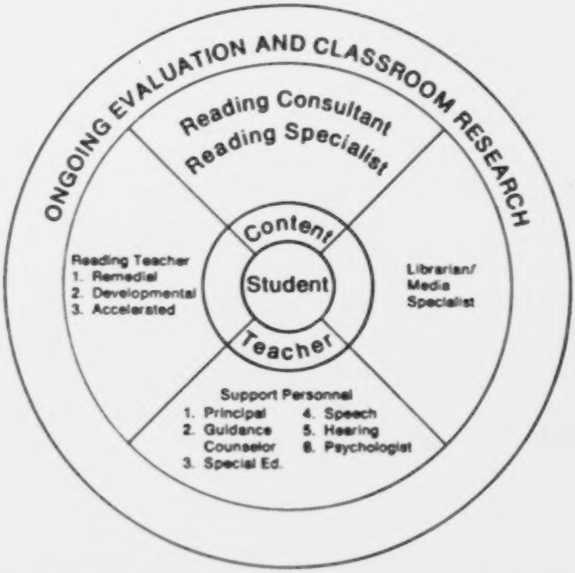
Such a plan for learning is advocated by Gowin (1981-1987), to make sense of educative events using the four commonplaces of education: teaching, learning, curriculum, and governance. For example, in a key event, the teacher initiates meaningful materials and instructional strategies to teach students so that they are able to understand; the materials make up the curriculum which guides the event; the students become active participants in the event; the event has certain rules (social or prescribed) by which it is governed.

Gowin's theory of educating is a conceptual approach to problem solving. It is an approach that fosters teacher/student social interactions that result in creating meaning through the negotiation of ideas. Gowin's principle of conceptual learning is that an individual learns a concept in a meaningful way in order to think new thoughts. This learning theory is notable because it deals with changing the meaning of an individual's experiences during the learning process. His theory contrasts others, such as behaviorist views that emphasize education as a change in the behavior of an individual or a classical view of education, prevalent in many schools, that values products as evaluation measures (e.g., scores on achievement tests, class rank, etc.). In Gowin's view of educating, the cognitive and affective domains do not function in isolation. Thinking is brought about through feelings and actions during educative events.

This theory of educating has a direct impact on reading comprehension and learning in the content areas. It emphasizes meaningful as opposed to rote learning, encompassing Ausubel's (1968) learning theory which places central emphasis on the influence of a student's prior knowledge on subsequent meaningful learning. In both of these theories, learning is under the deliberate control of the student, not the teacher.

The cooperative reading plan shown in Figure 1 is designed to involve the personnel of an entire school in a combined effort to provide an organized and meaningful reading program. It is not intended to be definitive or absolute. It is intended to evoke critical thinking and provide a broad base upon which to build a cooperative reading plan appropriate for a particular school population.

Figure 1
Cooperative Reading Plan


ONGOING EVALUATION AND CLASSROOM RESEARCH
Reading Consultant
Reading Specialist
Reading Teacher
1. Remedial
2. Developmental
3. Accelerated
Content
Student
Teacher
Librarian/
Media
Specialist
Support Personnel
1. Principal
2. Guidance Counselor
3. Special Ed.
4. Speech
5. Hearing
6. Psychologist

SOURCE: Marino C. Alvarez, A Cooperative Reading Plan Starts from Within, Involves Entire School, NASSP Bulletin, 65, 449, (December 1981), 67-74. Reprinted by permission..

This cooperative reading plan is centrifugal, starting from within and moving outward. This plan evolves from the student and subject-matter teacher and encompasses the reading consultant, reading teacher, librarian/media specialist, and support personnel. The overall governance of this plan comes directly from ongoing evaluation and classroom research with the personnel, materials, instruction, and diagnostic strategies being used within the reading and content classrooms.

In this plan, collaboration among administrators, faculty, students, and parents/guardians is a continuous undertaking throughout the school year. Under this format, test-driven curricula do not exist. The administration and faculty of a school establish the process and product measures of pupil achievement in accordance with the overall goals of the school district. Pupil, material, and instructional assessments are selected and developed within the school by the administrator and the teachers. Standardized achievement tests, informal teacher-made assessments, and observations account for pupil progress and achievement. Standardized tests are selected and the results are interpreted according to a particular school's needs, goals, and objectives. Local norms are developed from these results and are used to compare pupil progress, diversity, and interest (Alvarez & Colwell, 1978). This analysis enables teachers and administrators to evaluate their school philosophy, curricula, and instructional methods.

The most effectivechange agent and catalyst for implementing this plan for reading in the content areas is the classroom teacher. Empowerment of teachers is essential if the school population is to achieve. Teachers need to be empowered to effect this change by improving their status, their knowledge, and their access to decisionmaking (Maeroff, 1988). Concepts important for the delivery of this plan are that (1) total school achievement will improve by incorporating sound reading practices in content areas, (2) practical and necessary study and instructional strategies will provide for differentiated instruction within the classroom; and (3) increased achievement and differentiated instruction will aid in more positive student attitudes in content classes.

This change is accomplished, in part, by collaborative efforts between the principal and faculty (Alvarez & Colwell, 1978, 1979) and the teacher and college researcher. The principal is the instructional leader of the school and therefore must provide active leadership in organizing purposeful goals for implementing reading in the content areas. Among these responsibilities are (1) encouraging teachers to experiment with different instructional strategies, (2) meeting with classroom teachers to plan differentiated inservices based on faculty needs, and (3) providing funds enabling faculty to attend and/or present at local, state, and national reading conferences.

The college researcher becomes an integral part of the school reading plan. The role of the college researcher includes teaching teachers to become consumers and producers of research. Teachers are trained to use research and evaluation techniques in their classrooms, effecting a collaborative effort between the college researcher and the classroom teacher. The goal is for the teacher to become the researcher of his or her own class. Materials and instructional strategies (e.g., concept maps, Vee diagrams, questioning techniques, reading/study guides, think alouds, etc.) can be researched in their classes with their student population. The role of the teacher is expanded to that of a mentor of novice and/or preservice and postgraduate students enrolled in teacher education during their student teaching experiences. The college professor, classroom teacher, and preservice teacher become active partners in the teaching and research experiences with students in content classrooms.

In this cooperative reading plan, the entire school is responsible for its academic success. Students and teachers become empowered as partners in the teaching and learning process. The materials are selected by teachers to guide the learning process. Governance becomes a social context from which rules and responsibilities are derived upon the successful completion and meaningful understanding of the educational goals and needs of the students.

In conclusion, we need to look at the strengths of an individual school rather than its deficiencies in terms of an essentially total state-wide system. The potential of an individual school, and the resources it can fully avail itself of, will help to develop a differentiated public policy driven by the needs of the doer rather than mandated programs developed without consideration of diverse school populations.

Mandated policy decisions affecting reorganization and financing of schools, students, and communities need to be based on contingent needs. These needs may best be assessed by members of a given school, not by outsiders imposing their criteria on them. State department officials and researchers embarking on state-wide mandates would do well to become acquainted with the needs of each specific school population before planning a research program intended for everyone. It may be that the individual school community needs to educate the state official and the researcher.

Perhaps we need to stop thinking of education as a commodity designed to foster increased academic achievement under the "one-best-system." Advocating thinking skills while mandating instruction that allows for teacher/pupil accountability based on restrictive policies and programs does little to enhance educational reform. Instead, we should remember Plutarch's well considered dictum: "The mind must be seen not as a pitcher that needs to be filled but as a flame that must be kindled and fueled." If policy makers and program developers continue to advocate a "one-best-system" based on top-down mandates for all schools, we may be in danger of accomplishing the dubious distinction of filling the pitcher at the expense of dowsing the flame.

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Transaction and Interaction with Children's Literature: Direction of Policy

Mary M. Brittain, Nancy Boraks and Fredric Linder

This is the first of a three-part study concerning the impact of school/state policy on recommended and required reading. Part I surveys and describes policies regarding classroom literature selection in the elementary and middle grades. Part II will assess the impact of these policies on teachers' perceptions of themselves as decision makers. Part III will analyze the impact of these policies on students' response to literature.

Background and Theoretical Framework

Compared to high school teachers, who ordinarily must adhere to a fixed literature curriculum, elementary and middle school teachers have had considerable freedom in selecting, presenting and recommending books to their students. Informal evidence recently gathered from school systems located near the authors' university suggested that these conditions may no longer prevail today. Teachers have commented on the impact of reading lists issued to their students, noting that these lists limited their own input into the curriculum and curtailed children's independent reading. These teachers have suggested that national rhetoric calling for a common curriculum would establish an inverted pyramid of power: national to state, state to administrator, administrator to teacher—and that this weighs most heavily upon the child. Their comments prompted a broader examination of the incidence and impact of required and recommended reading lists at levels below high school and of the positions taken by professional organizations and specialists in children's literature regarding such policies.

Theory and research in children's literature stress the importance of individual selection and response (Norton, 1987; Purves & Monson, 1984; Rosenblatt, 1978), and writers in the field are united in their opposition to prescribed lists of books (Huck et al., 1987; LeBlanc, 1980; Nilson & Donelson, 1985; Reed, 1988). These authorities suggest that efforts to force books on students may result in a loss of interest in reading. Even Hirsch (1988), whose famous list of "what every American needs to know" features hundreds of items drawn directly from children's literature, decries the notion that specific materials should be required reading for all children, stating that the choice of materials should depend, at least in part, on the interests of students and teachers.

With over 40,000 children's book in print, authorities are agreed on the need for book-selection policies (Huck et al., 1987). Purves and Monson (1984) claim that the individual teacher is best equipped to decide which selections are most suitable and that children should have the opportunity to choose their books for free reading. The idea of recommended book lists, compiled by empathetic and knowledgeable teachers, is widely advocated (Huck et al., 1987; Norton, 1987). However, some lists not created by children's literature specialists (e.g. Bennett, National Endowment for the Humanities) have the aura of required lists.

In summary, specialists in children's literature support written book selection policies, recommended rather than required readings, and the rights of teachers and students to select books for voluntary reading as a part of an effective literature program. On the other hand, media articles and public figures seem to be moving toward standardized recommended and required lists.

National/State Policy

Bernstein (1984) attempted to assess the impact of the movement for a common curricular core, with a return to the more "classical" education of the past. She interviewed a variety of school administrators, teachers, publishers and authors and concluded that the emergence of a coherent national or local "vision" of literature is not imminent. An interview conducted by one of the authors with a local state department official revealed that there were indeed no lists of required or recommended readings and that there would be philosophical concerns with the creation of any such list. Recently, however, the press has published many articles describing how school boards across the country are creating and mandating the use of recommended or required lists (e.g., Richmond *Times Dispatch*, October 16, 1988). The validity of teachers' perceptions may lie in their awareness of such school board actions.

Methodology

A two-part survey concerned with demographic data and reading policies was mailed to public school superintendents and private school headmasters in all the districts and counties of Virginia. A cover letter stated the purpose of the study and requested that an appropriate administrator (e.g., Assistant Superintendent, Reading Coordinator) respond to the questionnaire. Part I of the survey requested information regarding present position, number of years in present position, and type and size of school district. Part II consisted of three questions regarding reading policies on recommended or required reading lists. Administrators were asked to return the survey in the self-addressed stamped envelope provided. Of the 320 surveys mailed to these school officials, 208 usable surveys were returned. This represented a 65% return rate, which was deemed appropriate for this study.

Results

Of the administrators who responded to the survey, 13% indicated that they were superintendents, 13% were assistant superintendents, 8% were reading coordinators and 66% responded "other". Analysis of the last category indicated that these respondees held a variety of positions: director of instruction, supervisor, headmaster, principal, curriculum coordinator, academic dean, language arts teacher and librarian.

The majority of the respondees (54%) indicated that they had been in their present position for one to five years, while 24% had served between six and ten years. With regard to location, 17% indicated that their school district was primarily urban, 37% suburban, and 46% rural. Regarding system size, 36% reported that their school district had fewer than four hundred students, 31% between one thousand and five thousand, and only 6% ten thousand or more students. Respondees were evenly divided between public (50%) and private (50%) schools. The first question concerned with reading policies was: Does your school division have a policy regarding recommended or required reading? Of the entire sample (N = 208), 53% responded "no" to this question. However, further analysis,by type of school,indicated that 72% of the public schools responded negatively but 66% of the private schools responded affirmatively, indicating that they did have such a policy. This difference was statistically significant,with (1, N = 208) = 30.87, $p < .001$.

Recommended reading. The second policy question asked: Does your school division provide a list of recommended readings? Of the entire sample, 55% indicated they do provide such a list. Once again, there was a statistically significant difference between public and private schools, with $X^{2(1, N}$ 208) 10.29, $p < .001$. The majority of public schools (56%) indicated they had no list, while an even larger proportion of the private schools (66%) indicated that they *did* have lists.

Required reading. The final question regarding reading policies asked: Does your school division provide a list of *required* readings? Seventy percent of the entire sample said they had no such lists, but the proportion of public school division (79%) who answered in the negative was significantly larger than that of private schools (61%), with X^2 (1, N = 208) = 8.22 $p < .004$.

Discussion and Conclusions

Perhaps teachers are aware of the truth of Oscar Wilde's statement that "it is personalities, not principles, that move the world." The principle espoused by professional organizations and by specialists in the field that it is the teacher's prerogative to select literature has been ignored by the personalities highlighted by the press. Their rhetoric may be promoting a turn to outside control of reading lists. For example, a majority of schools in Virginia lack policies which might obviate the imposition of lists. School divisions that reported having recommended and required lists said they were developed by faculty committees and librarians. However, if schools have no such lists, only 36% said list development was left to individual teachers. The administration of these schools may deem it inappropriate to clarify who has the discretion to develop these lists, or this may represent de facto recognition of teachers' right to create lists. Where *required* lists are used, faculty impact is dissipated. That is, when strong guidelines emerge, they do not come from the classroom teacher.

Policies and the use of recommended and/or required lists tend to go hand in hand. The public schools, which are mostly without policies, are less likely to have lists. The private schools, those most likely to have policies, are also most likely to have lists. Future phases of this study will seek to determine which comes first—policy or list?

At present it appears that teachers offer choices while committees offer mandates. It is not yet clear if there is a need to promote school development of policies in order to protect teachers' and children's choices. The second and third parts of this investigation, investigating the impact of policy on teacher and student use of literature, may yield guidelines here. This status report suggests that whether or not policies exist, the prerogative of the classroom teacher to select literature is unprotected.

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Enhancing Students Independent Learning and Text Comprehension with a Verbally Rehearsed Composing Strategy

Victoria Risko and Alice Patterson

Research conducted in classrooms and aimed toward a systematic inquiry of how target strategies affect student cognition is one way to influence practice. The purpose of this study was to analyze the content of notes generated by three groups of students who were encouraged to rehearse story ideas with a notetaking and reflection strategy, a group verbalization composing and concept mapping strategy, or a thematic (advanced) organizer combined with the group-composing and concept-mapping strategy. We examined the notes to determine why notetaking and reflection did not enhance the written retellings of the group who received this strategy. Our goal for this content analysis was to determine whether the group with limited retellings had a production deficiency during rehearsal (notetaking) or an access deficiency when asked to write a retelling. This study was influenced by theorists who suggest that encoding and/or access deficiencies may contribute to limited recall. Cognitive psychologists (Bransford, Franks, Vye & Sherwood, 1989; Morris, Bransford, & Franks, 1977; Tulving & Thomson, 1973) have argued that the way information is encoded will have a direct effect on recall. However, researchers (e.g., Perfetto, Bransford, & Franks, 1983) have also indicated that students may have well-developed knowledge sets that are either not accessed or are accessed inappropriately. Students who are asked to generate notes during reading and to reflect on these before writing a retelling may have limited encoding specificity (i.e., rehearse material that does not aid recall of important ideas) or they may encode information appropriately but not retrieve important ideas when asked to retell. The information reported here is derived from a broader study of the effects of rehearsal strategies on students' written retelling (Risko & Patterson, in press).

In our earlier analysis of retelling data for the students described above, we reported that groups who received either the thematic organizer in combination with the composing strategy or the composing strategy alone significantly outperformed students receiving the notetaking strategy on recall of main idea units (gist) and of theme and plot elements when these students were asked to read a difficult, less predictable text (e.g., inverted time order). We hypothesized that the composing strategy, when used alone or in conjunction with a thematic organizer, provides students with both a strategy and relevant story information to think about when using that strategy. Rehearsal of text ideas cannot help comprehension unless students are rehearsing ideas that are central to the meaning of the text. However, as we indicated above, even if students are rehearsing important text ideas, they may not access these when asked to write a retelling of a story.

Asking students to generate notes when they read to aid reading comprehension has produced mixed results. Studies showing positive effects have been conducted by Bretzing and Kulhavy (1979, 1981) and Carrier and Titus (1981). Studies not reporting positive effects include those conducted by Anerson (1980) and Meyer and McConkie (1973). Weinstein and Mayer (1986) view notetaking as a complex rehearsal task that is effective when it allows time for the learner to select and practice information-gathering strategies. Notetaking may be beneficial because it aids the learner in directing attention to specific text ideas (Anderson & Armbruster, 1984; Weinstein & Mayer, 1986) and allows the learner to reflect on ideas presented in the meaningful context of a narrative or expository passage.

Recording group verbalizations during reading, another form of notetaking, encourages a group of students to share and rehearse the information it selects from the text. Verbalizing one's thoughts during the reading process (think alouds) or the writing process (compose alouds) has been associated with facilitating recall and organization of written compositions (Eaton, 1982; Fagan, 1981; Hare & Smith, 1982; Hayes & Flower, 1980; Lytle, 1985; Newell, 1984; Olshavsky, 1976-1977; Schoenfeld, 1982; Schumacher, 1983; Strahan, 1981). Teachers can provide further support for students' learning by helping them make decisions about important text ideas and construct meaningful connections among text ideas through activities such as concept mapping (Novak & Gowin, 1984).

When the teacher and students generate notes and concept maps reciprocally during a group notetaking activity, the shared learning experience has the potential benefit of helping low-achieving readers differentiate important from less important ideas and highlight central concepts. The finding from our larger study that the two groups of students participating in group-generated notes and concepts outperformed their peers who took notes independently (Risko & Patterson, in press) provides support for this notion.

Shared, or mediated, learning experiences have been supported by cognitive researchers (e.g., Bransford, Sherwood & Hasselbring, 1988) who suggest that mediated learning in the classroom should occur within natural learning contexts, much like the shared learning experiences that occur between parents and children at home. Parents who act as mediators by helping their children make sense of their experiences can influence cognitive development (Fuerstein, 1979; Vygotsky, 1978) and meaningful learning (Chapman, 1978). Similarly, teachers who share learning experiences with their students can serve as mediators by helping students separate relevant from irrelevant information, prompting students to anticipate events, and helping students connect various parts of their experiences or ask questions about the text they'll read.

We designed this study to examine the content of our students' notes to determine the type of information that was recorded. While previous studies have shown that subjects' recall is similar to information recorded during notetaking (e.g., Bretzing & Kulhany, 1981), few researchers have examined notes for the kind of information that is recorded. Specifically, we analyzed the students' notes for inclusion of both gist statements and story grammar elements.

Methods

Subjects

The participants in the study were 14 sixth and 13 seventh graders enrolled in a remedial reading program in an inner-city school. Two additional students, absent on one of our three intervention days, were eliminated from the data analysis. The subjects' percentile scores on reading subtests of the *Stanford Achievement Test* (Gardner, Herbert, Karlsen, & Merwin, 1983) were within the range of 10 to 30. These 27 students, identified by their reading teachers as exhibiting reading comprehension problems in at least one of their content classes, represent the entire population of students identified by school personnel as remedial readers in the sixth and seventh grades.

Materials

The story for the intervention session discussed in this paper was "The Fun They Had," by Isaac Asimov. It was taken from *Reading Literature* (Chaparro & Trost, 1985), a supplementary text used by the students' language arts teachers. The structure of this story follows an inverted time order pattern, written in present tense with flashbacks to the past.

Photocopies of the entire story, with illustrations, were read by the students. Prior to the study, the investigators divided the story into three meaningful parts as determined by the presentation of structural elements of the story. For example, the first pause occurred after the setting and the protagonist's goal had been introduced. Each story was divided into approximately three equivalent units, with slashes placed at the end of each pausal unit.

Intervention Procedure

The following description is provided to explain the instruction received by each group of notetakers during a three day intervention period. The story described above was presented on the third day and the notetaking data for this story were analyzed for the study reported in this paper.

The students were randomly divided across grade levels into one of three groups. Each group of students was assigned to either the notetaking group (n=9), the thematic organizer/composing group (n=8), or the composing group (n=10). Each group met for three days. The first day was used as an introductory session for the next two days. The two researchers and one trained assistant were randomly assigned to one of the intervention groups and worked with this group throughout the study. The lessons for each day were scripted for consistency across all groups. The same materials were used with all groups. Time was held constant across all group activities (i.e., 25 minutes were assigned to story reading and pauses for rehearsal, 10 minutes were assigned to reflection on notes or concept mapping, and 10 minutes were allotted for writing the retellings).

During the introductory session each group received practice on its respective method of instruction. For each group the students and teacher read the assigned short stories and paused to practice the appropriate rehearsal strategy. In the notetaking group, the teacher and students explained how they would choose story ideas and paraphrase these for their notes. Writing text ideas "in their own words" or paraphrasing was a strategy used frequently by these students in their content class. The composing strategy had two phases. First, the students and teacher verbalized their thoughts during the pre-selected pauses in the story. Second, the students assisted the teacher in constructing a group concept map after reading the entire story. The second phase of the composing strategy was instituted to help the students identify central concepts of the text and form relationships among important and less important information. The concept maps were constructed in a hierarchical format following the procedure identified by Novak & Gowin (1984). After all instructional activities were concluded, students in each group were asked to review their notes or concept maps as they wrote a retelling of their story. They were told that on the two subsequent days these aids would not be available during the retelling activity.

On each of the following two days, students in the notetaking group were presented with a one-sentence general statement that introduced the students to the main idea of the story and then were instructed to read the designated section of text. After pausing, the students were directed to take notes as described above. The students were also directed not to read any further until all the students had completed writing. This procedure continued until all three parts of the story were completed. The teacher then directed the students to reflect on their notes by reviewing them, by designating ideas they wanted to remember, and by thinking about how they would tell the story in a written retelling. After providing time for student reflection, the notes, the teacher collected, and the students were instructed to write everything they could remember.

The thematic organizer/composing strategy group (hereafter referred to as the thematic organizer group) initially received a thematic organizer (Risko & Alvarez, 1986). The content of the organizer connected story information to general experiences believed to be relevant to the students' prior knowledge (e.g., characteristics of a house and things that make you happy) and required the students to make predictions about what they would read. After reading the organizer and writing their predictions, the students read the first designated portion of the text. The teacher and students then shared what they thought were the important ideas of the paragraphs. The responses were placed on an overhead transparency. This same procedure was followed for the three sections of the text, with the verbalized ideas placed on a new transparency each time. After the story was completed, the teacher and students reviewed the ideas by taking turns reading ideas from all the transparencies. Next, the teacher asked the students to discuss and identify one idea that best told what the story was about. The teacher wrote this idea on the board and drew a circle around it. The teacher asked the students to identify the next important ideas and to explain how they were related to the idea in the first circle. She continued in this manner until the ideas generated by the student were mapped at their respective hierarchial levels. When students and or the teacher disagreed with the selection of story ideas, the discussion continued until a consensus was reached. Once the story was mapped, the teacher asked the students to think about the map before it was erased. The students were then asked to write everything they could remember about the story.

The third group, the composing-strategy group, followed the same procedure as the second group, with the exception that a thematic organizer was not provided for the group prior to reading. Instead, the students were introduced to the story with the same one-sentence general statement that was given to the notetaking group.

Scoring Procedure

Two procedures were used to score the students' notes. The first scoring system evaluated the notes for inclusion of complete idea units and idea units related to the main ideas or gist of the story. For this procedure, the story was parsed into complete-idea units by placing slashes at the end of each pausal unit that had a complete thought (Johnson, 1970) or most important (gist) idea unit, using Novak and Gowin's (1984) classification system for identifying salient text concepts that represent the gist of the story. Inter-rater reliability for two independent raters on each analysis was .93 and .94. These analyses indicated that the story contained 107 complete idea units and 29 gist units. Then the students' notes were divided into complete idea units and gist units using the same classification system (inter-rater reliability coefficients were .95 and.95) and matched to their text counterparts (inter-rater reliability coefficients were .96 and .94). Since one set of notes was generated for each of the verbal composing groups, this list of notes for each group was analyzed. Conversely, notes for each individual student in the notetaking and reflection group were analyzed.

The second scoring procedure utilized Morrow's (1986) scoring system to evaluate students' generation of story grammar elements. As described above, notes for each group (verbal composing groups) or for each student (notetaking/reflection group) were scored using the following categories of story grammar: setting, theme, plot episodes, and resolution. Independent analysis of the protocols by each researcher resulted in a .95 reliability in scoring.

Results

The notes were content analyzed separately for each scoring procedure. For recall of idea units, two findings were noted. First, the average number of complete-idea units corresponding appropriately to the complete story ideas (107 units) generated by students in the notetaking group was 9.2 (SD = 1.9). Second, thirty-five percent (M = 3.4, SD = 1.2) of these units were gist statements. Students who received the thematic organizer composing strategy generated 13 idea units and 85% (n = 11) of which were gist statements. Students participating in the composing strategy group wrote 9 idea units, of which 78% (n = 7) were gist statements.

For the story grammar scoring procedure, the notes were analyzed for inclusion of each story element. The findings reveal both quantitative and qualitative differences. First, the analysis of the notes generated by the notetaking and reflection group revealed mean scores (total number = 10) of 4.7 (SD = 2.2), 4.4 (SD = 3.7), 3.9 (SD = 2.1), and 4.4 (SD = 3.7) respectively for setting, theme, plot, and resolution elements. The analysis of the thematic organizer composing group-generated list of notes revealed scores of 5, 5, 10, and 10 for the respective setting, theme, plot, and resolution elements respectively. Scores for the composing group-generated list of notes were 7.5, 10, 10, and 10 respectively for setting, theme, plot, and resolution.

Second, a closer inspection of performance relevant to the theme and plot categories revealed that the thematic organizer group generated the goal statement (omitting the initiating event) and all of the essential plot elements. Students in the composing group generated both the initiating event and goal statements and all of the essential plot elements. Conversely, only one student in the notetaking and reflection group generated both the initiating event and goal statements, while 50% and 22% of the remaining students generated initiating events and goal statements respectively. For the plot category, 78% of the students described the activities of the mechanical school, but none of the students took notes on the alternate version of schools. These students, therefore, neglected to take notes on approximately one-half of the plot information. The material that they omitted in their notes occurred during the author's flashbacks in time.

Discussion

These findings support for the theory that notes generated by students serve an important encoding function (Einstein, Morris, & Smith, 1985). The quantity and quality of students' notes differed according to intervention strategy. Earlier, our analysis of written retellings indicated that groups receiving either of the verbal composing strategies produced significantly more gist, theme, and plot statements than the group asked to take notes and reflect on these independently. Our analysis of the notes generated by the three groups revealed the same differential pattern. Generating notes in a group helped students rehearse the most important story elements. Students who generated notes independently produced notes less complete and less focused on major ideas. The correspondence between the retellings and the notes suggests that students recall the information they rehearse in their notes (Bretzing & Kulhavy, 1981).

These findings also contribute to previous discussions on the relationship of notetaking and the nature of processing text information. Peper and Mayer (1978) suggested that notetaking encourages deeper processing of information and organization of that information around central and important ideas. While the findings of Einstein, Morris, and Smith (1985) support this qualitative theory of notetaking, they conclude that students may not take notes on higher levels of text material if the text is not organized in predictable pattern. The depth of processing needed for a more difficult text could cause additional burdens in reading comprehension. When students were presented with a text with an inverted time order, it is probable that the thematic organizer and composing strategies were useful in helping students accommodate to the text structure and generate and organize important story ideas. Asking students to take notes and reflect on these notes independently did not help students focus on important ideas. Conversely, generating notes and concept maps as a group activity provided a shared context for learning—a context in which teachers and students shared contextual experiences to elaborate upon each other's ideas. Teachers who mediate students' learning encourage their active cognitive processing (Weinstein & Mayer, 1986) by prompting them to clarify and organize story ideas.

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Teaching Reading Comprehension: Direct Instruction Revisited

Thomas Cloer, Jr.

It has now been 10 years since Durkin's (1978) earth-shaking study that found almost no direct instruction of comprehension in elementary school. Probably no study in the literature on reading has been referenced more in one decade. A major objective of this paper will be to look at the research literature and see some of the direct instruction that has been attempted and to determine whether or not these studies conform to Durkin's original definition of instruction. Of course another goal is to determine whether studies that have followed Durkin's definition have been productive in improving the comprehension of students.

Defining Terms

One issue that throughout the 80's has intrigued and provoked practitioners has been that direct instruction of comprehension. Durkin is largely if not totally responsible for the provocation. It was she who so irreverently first defined comprehension instruction as something that the teacher initially does or says to help children understand the meaning of more than a single isolated word. Durkin's big bombshell was the act of discarding questions from the hallowed status of instruction. Durkin audaciously suggested that initial questions didn't count as instruction; teachers must first explain, describe, model and demonstrate before questioning students.

We in the field must now divide the history of reading comprehension instruction into B.D. and A.D. (Before Durkin and After Durkin). Before Durkin, no one seriously questioned the assumption that comprehension instruction could not be direct and that basal reader questions must trigger learning strategies for all students. After ten years of research A.D., it will be interesting to see if veritable gains have been made in altering our pedagogical stances toward comprehension instruction.

Direct Instruction

A term that needs clarification is "direct instruction", because many people confuse direct instruction A.D. (After Durkin) with the direct instruction B.D. The original direct instruction model was introduced by Science Research Associates through the DISTAR programs. These programs, by Englemann and Bruner (1969), in essence programmed the teacher and attempted to make lessons fool-proof. Baumann (1986) emphasized that this model was entirely script-driven. Becker (1977), in stating the value of this model, stressed the conclusion that teachers do not have the time to find appropriate words and examples or to sequence skill hierarchies in the most efficient manner. He stated that teachers might include verbiage or teach incorrect rules. It seems obvious that in the concept of direct instruction B.D., the teacher's role was very limited.

But after Durkin, direct instruction has a totally new meaning, emphasizing the teacher and children more. Now when one says at the American Reading Forum that a paper is to be presented on direct instruction, colleagues are less likely to go feed the pelicans on the beach. These people understand that in the new direct instruction paradigm, the teacher takes the lead for a short time and tries to help students before they apply the skill, instead of having an atomistic script, a worksheet, or a page of a workbook as the instruction.

Duffy and Roehler (1982) stressed high pupil engagement, specific corrective feedback, and careful teacher monitoring as essential aspects following direct instruction by the teacher, (Aulls [1986]). Baumann (1986), and Cloer (1984a) clearly place the teacher and the students above the script-driven direct instruction before Durkin.

Direct Instruction: Analyzing a Lesson

Aulls (1986) divided the verbal explaining into what, when and why. *What* has the teacher introducing what will be learned. The teacher's explaining *when* to employ the skill enables students to make progress toward using the skill independently in appropriate circumstances. Knowing *why* a certain comprehension skill is useful gives students a sense of purpose for learning the skill. Finally, Aulls (1986) stated that verbal modeling by the teacher demonstrates to students how to enact a strategy, how to solve a comprehension problem, and how to envision the otherwise covert mental processes used by teachers to make sense of a paragraph or text. Usually this simply means that a teacher talks aloud and shows students what must be done, for example, to identify, infer, or generate a main idea. This procedure then invites students to try to do just what the teacher did.

Baumann's (1986) criteria for direct reading comprehension instruction included why, what, and how in a fashion similar to Aulls. However, Baumann stated that in the introductory *why* phase of comprehension instruction, the students in effect are given a structured overview, so that they will have a clear understanding of the content and purpose of the lesson that follows. Baumann stressed the importance of giving an example of the skill *before* the direct instruction of how to use the skill. In this phase, a paragraph or section of the text containing an example of the script upon which teacher and students will perform some act is laid as a corpse in a casket before the audience for viewing. Baumann stressed that the teacher then walks to the center of the stage and shows, tells, models, demonstrates, and performs the act or application of the skill before the viewing audience.

Many writers (Aulls, 1986; Baumann, 1986; Cloer, 1981; Pearson, 1985; Pearson & Gallagher, 1983) emphasized the need for the focus to shift eventually from total application by the teacher to total application by the student. Direct instruction has in no way implied anything but a full transition from teacher to student. Teacher-centered direct instruction simply means that a teacher tries to do or say something to help students before the students try.

Self-Taught Comprehenders Versus Direct Instruction

Discussion has taken place in the literature concerning the confusion between research focusing on learning and research focusing on instruction (Cloer, 1984). Those of us interested in instructional research certainly applaud, encourage, burn incense to research on learning. But instruction in reading comprehension and student learning in relation to reading comprehension are not identical. Hoffman (1983) talked about reading comprehension instruction being the teacher's direct efforts to initiate and sustain student cooperation in completing the learning task. This fails to make the necessary distinction between instruction and learning. Instruction puts emphasis on an instructor initially; learning puts emphasis on the student.

Comprehension research B.D. omits the teacher's role in direct instruction and proceeds quickly to application by students. Comprehension research B.D. involving questioning is based, at least in part, on the correct assumption that many of us can and do learn things by simply being asked to do them. The survival of the human race is a clear indication that this hypothesis is tenable. No one surely would question the desirability of having people figure out the great mysteries of the universe if they are capable. We must applaud and encourage such aptitude. To suggest, however, that comprehension lessons B.D. are appropriate for some should not lead us to the conclusion that such lessons have high utility for all (Cloer, 1980). All humans at one time or another need some instruction in something in order to be successful. Furthermore, many of us who have discerned a few things on our own would have welcomed a little assistance along the way *before* we attempted to apply, for example, an inferential statistics skill.

Recognizing the Difference

Direct Instruction Not Evident

Williams (1986) described her research with learning disabled children in middle school as she attempted to teach them to identify and produce the main idea of short expository paragraphs. Williams stated that the lessons included well structured examples of the task, consistent modeling of the strategies, a sequence of response demands that reflected a progression from easier to more difficult material, and provision for practice.

When one examines the research carefully, interesting and provocative motifs emerge. For example, Williams (1986) stated, "To help the students identify the specific topic, we developed a set of questions along with activities in which the students circled and underlined the important aspects of the text" (p. 85-86). Williams reported that since learning disabled children had difficulty with the concept of general topic, a lesson with a series of questions began with a focus on that concept. "We started by asking, 'What is this paragraph about'?" (p. 86). The questioning terminology then was changed to general topic. "What is the general topic?" Next, a question-and-answer sequence followed that directed attention to a specific topic.

Williams referred to these question-and-answer sessions as instruction. A question arises whether such comprehension instruction would be classified B.D. or A.D. as operationally defined in this paper. Durkin (1978-79) would likely regard the questioning procedures as attempts to find out if children could find a general or specific topic.

Baumann (1986), however, included questioning as part of the direct instruction phase, where the teacher is showing, telling, modeling, and demonstrating. Baumann stated that "Heuristics are an important part of direct instruction; they provide students with some structure or method to use when they apply the skill in the future independently" (p. 142143). Baumann further stated that in the direct instruction phase of a comprehension lesson *before* teacher-direct application, "the teacher requires students to compose answers whenever possible in direct instruction" (p. 143).

This raises crucial questions that must be addressed. How does "requiring students to compose answers" differ from Durkin's classifications of interrogation, assignment-giving, application, or assessment? Was questioning before modeling not responsible for the whole movement of direct comprehension instruction in the first place? What is the difference between asking subjects to find the general topic or the main idea of a paragraph and what was done before Durkin? Does questioning of this type not place the lesson in a B.D. context rather than in the teacher-centered direct instruction paradigm that we have come to know in 1988 A.D.?

Williams' research with learning disabled students did result in significantly higher achievement for an instructed group taught heuristically than for a control group receiving no instruction, but the question remains whether this type of research proves anything other than the fact that testing (formally and informally) shapes behavior (Cloer, 1981).

Singer's (1978) concept of active comprehension is a provocative one to consider in relation to this difference. Singer's process teaches pupils to formulate their own questions. The purpose for having pupils formulate their own questions is to help pupils interact more closely with the author. With pictures from a story, a teacher will ask a question to get a question. "What would you like to find out about this picture?" With a title of a story a teacher might ask, "What questions would you ask from just reading the title?" While looking at the first paragraph the teacher might say, "What question pops in your mind as you read the first sentence?"

McNeil (1987) discussed a competitive situation in which the class was divided into two groups, with two pupils at the chalkboard to write down questions students posed as being important to answer in understanding a story. The pupils competed in answering their own questions stimulated by pictures, title, and first paragraph.

This intriguing process does depart from the tradition of the teacher's asking pupils questions before, during, and after reading.

However, unless modeling and demonstration by the teacher preceded the performance of the students, the practice would not be radically different from comprehension instruction before Durkin. In fact, formulating questions is probably a more demanding intellectual task than answering questions. The research on the propensity of teachers to ask literal questions certainly suggests this might be the case. The process holds promise for more students if the teacher first models the formulation of questions, and answers the questons, and then has students do the same and apply the technique with different texts. In this way, the process becomes initially teacher-centered.

Hare and Bingham (1986) dealt with strategies in a politically and academically safe manner by placing themselves squarely and equally on both sides of the issue. They gained applause from the Durkinites by proclaiming that children have been simply practicing the main-idea lessons rather than receiving focused instruction on comprehension skills. They then garnered the praise of the Heuristicites by suggesting an alternative to direct instruction for students who have had experience with text forms.

Hare and Bingham's discovery lessons for comprehension development appear to omit direct instruction. For example, as an effort to help children develop a blueprint for understanding the structure of ideas in narratives, Hare and Bingham suggested that a chart with the following headings be shown: setting, characters, plot, ending, and important summary. They suggested that teachers should then "ask students to tell what they think each category means, and provide corrective feedback" (p. 182).

Durkin would turn the siren handle at this point. After Durkin, the teacher would have first told what each category meant, with the knowledge that more children would when asked be more likely to tell what each category meant. After reading a story that follows Hare and Bingham's blueprint, teachers are instructed to ask student volunteers to describe the story and jot their ideas on the chalkboard. Bingham and Hare suggested that teachers should "ask clarifying questons if necessary. Encourage thinking aloud." Children are asked to give reasons why an idea was placed in a certain category.

It seems evident that any time a lesson offered by an Heuristicite has students teaching other students in this manner, those with superior abilities to discern the answers quickly will be able to do well, teach the concepts for the teacher, and make the lesson a success.

However, a major goal of direct comprehension instruction after Durkin has been to give a larger number of students an equal chance to be successful in applying a comprehension skill. Only those who come to discovery lessons already possessing the skill that discovery lessons ostensibly teach are most successful initially. A true direct instruction approach assumes that at least part of the class needs to learn the skill the lesson purportedly teaches the students to apply.

Direct Instruction Evident

Aulls (1986) reviewed research reported by Brown and Day (1983) and concluded that an experimental group of junior college students given the most explicit information on how to write summaries produced significantly better summaries. The processes needed to read, extract, and write the summaries were explicitly stated and modeled. The research involved four groups of junior college students. The group producing the poorest summaries were those that received handouts listing rules for summarization. These rules were not explained or verbally modeled. One low scoring group was also given a handout describing a three-step procedure for writing a summary, which included statements requiring the subject to state the theme, reread the text, and check and double check the summary against the original text. No verbal explanation or description of how to do this was included. These groups fretted and worked, but were ineffective in writing summaries. This study reminded me of the time I took diving lessons as a beginner, hoping that I would receive instruction. The "instructor" stated the steps I should go through in doing a one-and-a-half forward. He stated that I should approach the board, concentrate, walk rapidly to the end and perform a one-and-a-half with confidence. I as a totally inept diver did about as well with that skill as these junior college students did with their summaries when they were simply told the things they would need to do to perform the task.

Taylor (1986) gave a good example of direct comprehension instruction involving summarizing. She began by explaining to middle school students what a hierarchical summary was, why the technique was useful, and when students might use the skill. She suggested that during this explanatory phase of teaching students should be shown a sample summary of a textbook selection. The next necessary procedural phase of teaching was to model for students *how* to make and study a hierarchical summary. She modeled development of good main idea statements while thinking through poor main idea statements for contrast. She also modeled the retrieval of important details as contrasted with unimportant details. Taylor (1982) reported that this type of teacher-centered instruction resulted in better recall of textbook material for fifth graders than simply answering and studying practice questions.

Taylor (1986) also demonstrated how to use direct instruction in a mapping lesson. A map is different from a summary in that it comprises key words instead of sentences containing main ideas and details. The teacher explains what the mapping technique includes, why it is useful, and when to use it. After this declarative phase of teaching, Taylor suggested, the teacher should model how to make and study a map. Only after the teacher-centered beginning did Taylor suggest that teacher and students make maps together. "Each time the teacher should do less with the students and have them do more of the mapping, perhaps providing a sample map to which students can compare their own maps" (p. 207).

Reutzel (1986) combined a cloze strategy with a story mapping strategy and with fifth grade children modeled through direct instruction how to arrive at reasonable predictions for the deleted portions of the cloze story map. Results demonstrated that on immediate and delayed free-recall tests covering narrative and expository text types, the students receiving the direct instruction scored significantly higher than a control group discussing questions and making predictions without direct instruction.

Readance, Baldwin, and Head (1986) conducted two experiments with third graders to explore the efficacy of direct instruction in the comprehension of metaphors and to compare direct instruction with traditional basal instruction. They used Gateways, a Houghton Mifflin Basal, to conduct a three-lesson presentation involving basic skill instruction, reteaching basic skills, and application and maintenance of skills. In each experiment, the group receiving direct experimental modeling of ways to process metaphors scored significantly higher.

Baumann (1986) reviewed several research studies after Durkin and concluded that there was ample evidence to support the effectiveness of a direct instruction approach to teaching reading comprehension skills. Hansen and Pearson (1983) taught children to improve significantly their inferential comprehension skills through direct instruction. Fitzgerald and Spiegel (1983) reported significantly better comprehension of stories after direct instruction on narrative structure.

One very fine study by Patching et al. (1983) trained an experimental group of fifth grade students in critical comprehension skills with systematic and direct instruction. These students were compared to a control group who taught themselves with workbooks and corrective feedback. The students receiving direct instruction scored significantly better on critical reading tasks than did the central group.

Direct Instruction by Effective and Affective Teachers

Some very interesting research findings (A.D.) on teacher effectiveness support a direct instruction strategy (Baumann, 1986).

Effective teachers assume that the school is primarily responsible for student achievement (Hoffman & Rutherford, 1984). Effective teachers accept that genuine social problems affect the children's potential for learning in school. However, these effective teachers teach as if these variables are largely beyond their scope, which they are. These teachers expect their students to learn in spite of these problems in society, because the teachers have confidence in their ability to teach.

Rosenshine and Steven (1984) addressed the question concerning whether students perform better after self-teaching and feel better about themselves. Solomon and Kendall (1979) concluded that teachers who ran their classrooms, took charge, and led lessons were more effective than teachers who simply left children to contemplate the plight of man. But others questioned the effects of teacher-centered lessons on the self-esteem of students. Rosenshine and Stevens (1984) concluded that children taught in a student-centered classroom, where students basically taught themselves, had not only lower achievement than teacher-centered classes but less creativity, curiosity, and self-esteem.

Baumann (1986) concluded that effective teachers enable students to be regularly successful. Students in these teacher-centered classes respond to most questions correctly, read aloud with only a few miscues, and get most things correct on written assignments.

This seems to be the sine qua non when discussing direct instruction strategies. If we make lessons teacher-centered initially for a brief period in order to reduce student miscues, affective concerns may be more successfully addressed. Why anyone would ever think that stumbling through a self-taught diving or reading comprehension lesson would be better for one's self-image is a mystery. My self-image in relation to diving would have been much stronger had I been controlled initially with ropes, like people training on the trapeze, rather than simply turned me loose to make a veritable jackass of myself in front of the others. Baumann (1986) suggested that low success rates encountered in self-taught, student centered classes discourage rather than promote learning.

Much has been said after Durkin about the difference between teaching and learning. It generally is assumed that many people can learn without being taught. But another question that begs an answer as we approach the nineties is: To what extent does learning on one's own something as difficult as inferential statistics, or implied main idea affect one's attitude toward learning in the future? Even for those who eventually can infer a main idea without any direct instruction, does the haphazard stumbling and groping affect later encounters with a difficult learning task? Would direct instruction in reading comprehension be more beneficial even for those who can eventually infer a main idea without any direct instruction?

This concern is at the center of the dilemma about direct comprehension strategies. Can we reduce the *initial* failure that comes from questioning and testing under the guise of instruction and still promote better understanding with less anxiety through initial teacher-centered lessons? Should everyone be taught initially with direct instruction before being asked to perform? Would this be appropriate for Ph.D.'s in post-doctoral work? Would they resent it? It may be that the nineties will have seen the pendulum swing toward direct instruction of comprehension skills before testing. It is the task of the American Reading Forum to continuously explore, discuss, and debate the merits of each pedagogical stance.

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College Level Developmental Programs: Policy and Instructional Issues

Louise M. Tomlinson

In response to the needs of the underprepared student, programs classified since the mid-1800s as "college preparatory" have served many of the same goals as those more recent programs labelled "academic development, learning assistance, or developmental studies." The change in labelling of preparatory programs is to some extent associated with the change in student populations. Where socioeconomic status, instead of ability, was once the primary determinant of attendance at a college or university, the student population now admitted to institutions of higher education through developmental programs or regular curriculum spans a wide range in terms of race, ethnic origin, socioeconomic background, high-school grade point average, age, and career objectives. A major factor in this diversity has been admissions policy in response to society's evolving perception of the role and value of higher education.

Despite the long-standing history of learning assistance services, some of the most provocative and frequently posed questions regarding the rationale for developmental programs, their purpose, and their place have been expressed as follows:

—What should be the role of the institutions of higher education in regard to the underprepared student?

—Should universities admit students who are not adequately prepared for college?

—Should colleges and universities engage in providing academic preparation for the academically underprepared student?

—Should institutions of higher education offer academic work considered to be on a precollege level? (Roberts, 1986, p. 1)

Observable and projected changes in the diversity of levels of preparedness of high-school graduates, sociological and technological change, employment trends, and other demographic factors, do create educational needs which impact upon the role and responsibility of institutions of higher education.

Reason for Being

The characteristics and needs of the target group for services now known as developmental studies have come to reflect the new diversity of the student population at the post-secondary level. The change in philosophy of the purpose of a college education has, in turn, created a change in the numbers of minority and lowsocioeconomic-status individuals who pursue their fundamental right to post-secondary education. Consequently, there has also been an increase in the number of educationally disadvantaged—underprepared—individuals who seek enrollment in institutions of higher education.

Recently, Hardesty (1986), in the Coordinating Board of the Texas College and University System Newsletter, made the following statement:

> At least 30,000 freshman who enter Texas public colleges and universities each year cannot read, write or compute at levels needed to perform effectively in higher education. . . . The committee's report shows that students who meet the standard admission criteria at the state's public colleges still lack basic skills. . . . They are intelligent, qualified students, competent enough to meet the entrance requirements despite a deficiency in given skills. To prevent them from entering college would bar too many capable students from higher education. (p. 1)

This statement emphasizes the diversity of levels of unpreparedness.

Enrollment in developmental programs has clearly increased in recent years, and is likely to continue to increase into the 1990s. It is predicted that a part of this increase will result from increased recruitment of disadvantaged students—not only from the minority groups. According to demographic trends, there will be more nonminority students from rural areas, more suburban students, and more low-income students from suburban areas (Boylan, 1985).

Junior or Senior College Responsibility?

This new diversity has necessitated the restructuring of programs to meet the needs of its clients. However, the new population of applicants is increasing more rapidly than the rate at which high school curriculum and teacher preparation for secondary schools can possibly change. Thus, many theorists indicate that developmental studies programs should be considered an integral facet of higher education.

Moreover, it would seem that senior institutions of higher education would be most adequately prepared to provide successful programs of academic development. These institutions house schools of education with faculty and graduate students specializing in the critical areas of developmental/remedial instruction and counseling. Growth trends reflect that, prior to 1960, the highest percentage of such programs were found at institutions including post-graduate instruction. Again, by 1976 there was increased involvement of senior college and universities in the provision of remedial and developmental services (Roueche & Snow, 1977). These senior institutions are usually committed to community service projects which often establish viable links to the public schools where inservice/staff development can do much to inform all individuals, secondary and postsecondary, who are concerned with meeting the needs of the target populations.

Currently, developmental/remedial or academic-support programs hold vast potential in the movement toward equal educational opportunity in a democratic society. One of the traditional roles of education in the U.S. has been to broaden opportunities for productive, influential and rewarding participation in the affairs of society by developing the skills and credentials necessary for economic and social satisfaction (Gordon, 1971). A recent increase in required educational competency levels is reflected in the College Board's 10-year Educational Equality Project (1983) and in the Southern Association of Colleges and Schools criteria to be met by this year, 1988, as well as a more recent rise in SAT score requirements for many institutions of higher education. At a time when high-school-graduation and college-entrance requirements are being made more stringent nationwide, there will still be numbers of hopeful students who will not meet the admission criteria. Gordon's (1971) discussion of the purpose of education in a democratic society illuminates the critical role of developmental programs for those who fall short of standard college entrance requirements:

> If that purpose [of education in a democratic society] is to broaden opportunities for meaningful participation in the mainstream of society,. . . then educational opportunity is unequal unless it serves that purpose for all learners. At any point in the history of a society, the minimum educational goals are defined by the prerequisites for meaningful participation or for economic, social and political survival. The educational experience can and should enable many persons to go far beyond the development of such survival skills, but it cannot be considered to have provided equality of opportunity unless it enables nearly all [save the 3% to 5% who are truly mentally defective] to reach the survival or participation level. (p. 7)

If college-admission criteria will exclude some high school graduates, then developmental studies programs can continue to play a critical role in the scheme of higher education, by providing the kind of instruction and preparation that some individuals need in order to gain access to post-secondary educational experience.

Although senior institutions of higher education traditionally contain more resources, facilities, scholars, and researchers with the acumen to address the needs of the underprepared student, a substantial percentage of individuals voice the opinion that developmental courses are best suited to two-year community colleges and should be excluded from four-year colleges and universities. This controversy has been put into perspective by Ross and Roe (1986), who indicate that every institution has its lowest students, many of whom need remediation. They refer to programs for underprepared students which exist at Duke University, Ohio State University, Massachusetts Institute of Technology, and Stanford. In reference to Harvard's remedial reading program, they quote William Perry (1959), who stated that "Harvard's 'remedial'" students already were reading better than 85 percent of the nation's college freshmen, but they still needed help to measure up to the demands of their coursework" (p. 194). Clearly, there is a great diversity of types of institutions providing developmental programs.

In defense of the average student, it has been claimed that 95 percent can learn a subject to a high level of mastery if given sufficient learning time and appropriate types of help (Bloom, 1971). Although it is predicted that a good remedial program can help only 50 percent of its students to perform adequately in regular courses and only 25 percent to meet graduation requirements (Moore, 1984), this success ratio is substantial, in view of the fact that many underprepared students suffer several years deficiency in specific skills when they enroll in postsecondary developmental programs allowing, on an average, only one year of remediation.

Two interesting conclusive arguments are presented for the defense of developmental programs in terms of role and responsibility. First, where popular opinion often holds that developmental programs dilute academic programs, proponents of developmental programs argue that their role is to support and enrich the regular curriculum and ensure that more students will succeed. From this perspective remedial courses are viewed as additions to, not replacements for, the required coursework of a student's program of study.

Second, while it is often argued that many of the skills taught in developmental education programs at institutions of higher education should have been mastered by the student earlier, this has not always been possible, for a variety of reasons. According to Roberts (1986):

> It is impractical to expect adults to return to primary or secondary school to acquire the skills they need to be of value to themselves and to society. A choice must be made. Developmental education programs demonstrate that society has decided to help individuals overcome their skill deficiencies. The alternative would be to allow those individuals to remain a liability not only to themselves but also perhaps to society as well. (p. 71)

Admission and Placement Standards

Standards vary within systems at various institutional levels such that there is no consistent indicator of what is held to be the threshold of preparedness or unpreparedness (Abraham, 1986). Within an institutional level (university, four-year college, two-year college) minimum admission criteria now vary across categories of entering freshmen (e.g., for athletes, the minimum total SAT score of 700 is set by proposition 48 of the NCAA, while other entering freshmen may qualify with total scores less than 700). Students are also accepted with minimal entrance scores and then deemed by faculty as too deficient to be taught effectively. Where systems allow for each institution to determine its own admission standards by a combination of high school grade point average and SAT or ACT scores said to predict success or failure, there is cause to consider whether the process is adequate—whether all who are accepted or rejected are accurately predicted for success or failure.

In a survey of remedial/developmental programs in 489 public two-year and four-year colleges in the fifteen Southern Regional Educational Board (SREB) states, Abraham (1986) concluded that:

> Colleges and universities use few common standards to make placement decision. . . . In the SREB states, almost 100 combinations of about 70 different tests in the areas of reading, writing, and mathematics are used to place students in either college degree-credit or remedial/development courses. . . . It is also reasonable to assume that the large variety of tests in use implies a lack of uniform standards for what is usually considered "college-level" work. (p. 1-4)

There were at least ten different instruments identified (across the aggregate of responding institutions) for each subject area placement process.

Evaluation and Research

Before and after the placement process, which results in substantial numbers of students being enrolled in developmental programs, there are always questions about what to do with these students and who should do this. What can be done with underprepared students and who should or can do something can be answered in part by ongoing research for purposes of program evaluation.

Different methods are used for program evaluation at various institutions. It should be noted that although program evaluation does provide a monitoring system to assess effectiveness and facilitate improvement, it is by no means a panacea in terms of serving to ameliorate all of the many problems that any one program may experience. The type of evaluation process that a particular institution may choose is determined largely by the overall profile of the institution.

Assessments of the validity and reliability of developmental program evaluations over the past three decades reflect some skepticism as to the accuracy of this research in its efforts to determine the effectiveness and value of programs. The research design of studies showing positive results from developmental programs prior to the 1960s has been particularly criticized as faulty (Cross, 1976).

An area of future focus is the importance of college-level developmental research. First, a large number of programs conduct very little "in house" research. Although the literature does provide some reputable and continuous sources of research on a variety of topics germane to teaching and learning for remedial/developmental populations, where developmental practitioners are not guided by their own research, there is more room for the possible deterioration of effectiveness. Staff should be encouraged to conduct their own research, and administrators should provide the support necessary in such endeavors.

Second, future focus should be placed particularly on the grade point average (GPA) as an indicator of program effectiveness. The literature indicates that the GPA is a more defensible measure for program effectiveness than any other. It is a more accurate measure and predictor of student performance—even more so than standardized test scores—and student performance is the ultimate measure of program success. (Standardized tests measure performance on the test, while the GPA is an indicator of performance at a variety of tasks over a substantial span of time.) In addition, since the sole objective of many programs is preparing students for the core curriculum (mainly freshman courses), such programs would evaluate effectiveness more justly by using comparisons of GPA up to and including only the first year of matriculation.

Finally, there is very little indication of external program evaluation in the literature. Perhaps, in the struggle to achieve a balance of equity and excellence, programs at all points on the continuum of failure to success would do well to undergo evaluation by external agencies. It is likely that external evaluation has not been frequently considered in order to protect the developmental department, often perceived as a "stepchild", from being evaluated as a "stepchild." The concept of accountability, often associated with evaluation, has created negative connotations where administrators and faculty are made to feel responsible for program and student outcomes that can easily be hampered by uncontrollable variables. However, if sound evaluation procedures are identified—in terms of utility, timeliness, participant ownership of data, and cost effectiveness—and these procedures are used objectively, then administrators and practitioners may enhance their ability to make informed and unbiased decisions about the improvement and direction of developmental programs for the future. The option of external evaluation will probably be best received by potential participants when the evaluator is independent of federal funding offices or board offices that apply political pressures for purposes of obtaining funds, satisfying governing offices, or maintaining public confidence.

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An Analysis of Reading Textbooks Used at the College Level

Patricia K. Smith

Selecting level-appropriate materials in American public schools receives notable attention (Davison, 1988). However, in undergraduate and graduate courses, selecting level-appropriate textbooks receives little consideration, because college professors tend to select reading texts which are available and appear suitable for specific courses. From entrance as undergraduate freshmen to the completion of a doctoral program, students exhibit diverse abilities, experience, knowledge, and education. Higher education professors cannot assume that undergraduate and graduate students can, or should, use texts of the same difficulty interchangeably. Graduate students, possessing more knowledge and experience, should be exposed to more difficult texts with higher readability ratings. Research supports the notion that appropriate and increased readability in textbooks produces expanded comprehension, retention, reading speed, and efficiency (Durkin, 1987), which in turn results in greater knowledge.

According to Tyson-Bernstein (1988), textbooks are important to students and disciplines because texts pull together knowledge that is lying around in bits and pieces. Of particular importance to this study is a comment by college professors, reported by Tyson-Bernstein, who stated that "the prose [of textbooks] is dumbed down to accommodate the poorer reading skills of today's undergraduates." Additionally, professors have stated that college textbooks, especially those written for lower division courses, take on too many topics, treating them superficially, have too many unexplained facts and not enough context, have new knowledge piled on rather than assimilated, have special-interest-group messages which appear as snippets of content, have flashy graphics and white space, which further compresses the already compressed text, and seduce professors into being addicted to teacher manuals and ancillary products.

Because research concerning the selection of appropriate texts for college students was lacking, this study was undertaken to determine college reading professors' perceptions regarding texts which are used to teach courses in foundations, elementary, content areas, diagnosis/-remediation, clinical reading, and children's literature. Texts reported by professors were classified and ranked within categories for frequency of use at the undergraduate and graduate levels. The levels of text readability were determined by formulas and analyzed to ascertain whether the most widely used college texts were appropriate for the levels being taught. The focus and scope of the research considered the surface structure of text readability and did not deal with subjective factors of individual readers, because instructors place textbook orders long before they have contact with students who will be enrolled in classes. Instructors must rely on their own personal expertise and make professional judgments when selecting reading texts. Currently, the only guideline appears to be content of courses. This has been the traditional method of text selection and appears to be an accepted concept. Professors should go one step further and use readability formulas to measure textbooks, to assure that adopted texts are of appropriate difficulty. According to Klare (1984), formulas selected and properly implemented are helpful screening devices.

Method

Two hundred institutions which grant undergraduate, master, and doctoral degrees in reading were randomly selected and contacted by mail. A reading department chair, coordinator, or a faculty member representing each institution was asked to respond to a written interview and questionnaire. Questions related to all three levels of degrees were presented to determine professors' perceptions through the identification of texts used within specific reading areas. Replies from 70 institutions, 35% return, yielded a sample representing all geographic areas of the United States.

The following reading categories resulted: foundations of reading, elementary, content-area reading, diagnosis/remediation, clinical, and children's literature. Although over 300 textbooks were reported and classified by instructors, a total of 34 surfaced as most frequently used (see appendix). The original intent of the study was to identify and analyze the three most frequently used texts in each category, but it was necessary to vary this number because some categories had one or two books identified while others had up to six books equally ranked.

Readability measures, which were applied after identification of the most frequently used books, involved randomly sampling three 100-

word passages from the beginning, middle, and end of each of the 34 books. Because of discrepancies in readability scales, five formulas provided in *School Utilities, Volume 2* (Minnesota Educational Computing Consortium, 1982) were applied to determine surface readability of identified textbooks. Readability measures used were the Dale-Chall Formula, Fry Readability Estimate, Raygor Readability Estimate, Flesch Readability Formula, and Gunning-Fog Readability Formula. A readability level for each passage was obtained and a final score for each text was computed by averaging results of all five formulas (see Table 1). Readability scores of 16.9 or below were designated for the undergraduate level while, scores above 16.9 were classified as graduate.

Discussion

Responses indicated that higher education professors tended to be inconsistent in their definitions of courses as well as in course content. Because of this, textbooks were reported in categories indicated by professors; no attempt was made to align courses and content. Thirty-four texts surfaced as being most frequently used, with some texts being duplicated across levels or reported in more than one category.

Foundations of Reading Textbooks

Frequency and readability levels. Of 18 foundations of reading texts reported at the undergraduate level, all appeared to be within an appropriate readability range. Burns, Roe, & Ross's *Teaching Reading in Today's Elementary Schools,* with a readability of 16.0+, emerged as the most frequently used text, followed equally by Anderson et al. *Becoming a Nation of Readers* (14.6+) and Heilman, Blair, & Rupley's *Principles and Practices of Teaching Reading* (15.9+) (See Table 2). Of 33 books reported at the master's level, Burmeister's *Foundations and Strategies for Teaching Children to Read* (14.5) ranked first, followed by six equally ranked texts, ranging from 13.7 to 17.1+. Five appeared to be more suitable for undergraduates and two appropriate for graduates. Although 11 books were identified at the doctoral level, only one text, *Handbook of Reading Instruction* (17.+), edited by Pearson, was reported used by more than one instructor and appeared to be appropriate for graduate students.

Table 1

Readability Scores of Reading Textbooks by Authors and Formula

	Readability Scores						
Author	Dale-Chall	Fry	Raygor	Flesch	Gunning-Fog	Aver. Range	Range
Alexander	13-15	14	17+*	13-15	15.7	14.5-15.3+	14.9+
Anderson et al.	13-15	13	17+*	13-15	15.1	14.2-15.0+	14.6+
Bond et al.	11-12	12	12	13-15	16.7	12.9-13.5	13.2
Burmeister	13-15	13	13-16	13-15	17	13.8-15.2	14.5
Burns et al.	13-15	14	17+*	16	18.9	15.8-16.2+	16.0+
Dallmann et al.	13-15	16	13-16	16	18	15.2-16.2	15.7
Dechant	13-15	17	17+*	17+	18.5	16.5-16.9+	16.7+
Dechant, Smith	13-15	16	13-16	16	15.8	14.8-15.8	15.3
Durkin '80	11-12	13	12	13-15	16.5	13.1-13.7	13.4
Durkin '83	11-12	15	12	16	18	14.4-14.6	14.5
Ekwall, Shanker '83	11-12	12	12	13-15	17.7	13.1-13.7	13.4
Ekwall, Shanker '85	17+	16	17+*	17+	19.4	17.3+	17.3+
Gillet, Temple	17+	16	17+*	16	17.9	16.8+	16.8+
Gusak	11-12	13	17+*	13-15	15.1	13.8-14.4+	14.1+
Harris, Sipay '84	13-15	12	13-16	12	13.6	13.5-13.9	13.7
Harris, Sipay '85	17+	15	17+*	16	20.3	17.1*	17.1+
Heilman et al.	13-15	16	17+*	16	16.7	15.7-16.1+	15.9+
Herber	17+	15	17+*	16	17.5	16.5+	16.5+
Huck	11-12	10	9	11	13.3	10.9-11.1	11.0
Kaluger, Kolson	17+	14	13-16	16	16.9	15.4-16.0+	15.7+
Lapp, Flood	17+	16	13-16	16	17.6	15.9-16.5+	16.2+
Norton	17+	11	11	12	14.4	13.1+	13.1+
Pearson	17+	16	17+*	16	19.5	17.1+	17.1+
Readence et al.	17+	17	17+*	17+	18.8	17.4+	17.4+
Roe et al.	17+	16	17+*	16	18.4	16.9+	16.9+
Rudman	13-15	12	13-16	13-15	16.8	13.6-15.0	14.3
Rupley, Blair	17+	17	17+*	16	16.3	16.7+	16.7+
Smith	13-15	17	13-16	16	17.8	15.4-16.4	16.9+
Spache, Spache	17+	16	17+*	16	18.2	16.9+	16.9+
Sutherland, Arbuthnot	11-12	12	12	13-15	17.6	13.1-13.7	13.4
Vacca '81	17+	16	17+*	16	17.2	16.6+	16.6+
Vacca, Vacca '86	17+	17+*	16	16.8	16.6+	16.6+	
Wilson, Cleland	17+	17	17+*	17+	17.4	17.1+	17.1+
Zintz	11-12	11	13-16	13-15	16.7	12.9-14.1	13.5

*Number equivalent given to *Scientific, Professional, Technical* level of readability

Table 2

Readability of College Reading Texts Most Frequently Used

(Listed by author's names in rank order)

Category	Undergrad.	Master	Doctoral
	Readabil./Authors	Readabil./Authors	Readabil./Authors
Founda.	16.0+ Burns et al. 14.6 Anderson et al.** 15.9+ Heilman et al.**	14.5 Burmeister 16.0+ Burns et al.** 16.7+ Dechant** 15.3 Dechant, Smith** 17.3+ Ekwall, Shanker '85** 13.7 Harris, Sipay '84** 17.1+ Harris, Sipay '85**	17.1+ Pearson
Elemen.	16.0+ Burns et al. 14.5 Durkin '83 14.9+ Alexander	13.4 Durkin '80* 17.3+ Ekwall, Shanker'85** 16.0+ Burns et al.** 14.5 Durkin '83** 16.2+ Lapp, Flood** 16.9+ Spache, Spache**	14.9+ Alexander 15.7 Dallmann et al. 15.9 Smith
Content Area	16.6+ Vacca, Vacca '86 17.4+ Readence et al. 16.9+ Roe et al.	16.6+ Vacca '81 16.5+ Herber 17.4+ Readence et al.	16.6+ Vacca '81
Diag/Rem	16.8+ Gillet, Temple 14.1+ Guszak** 13.5 Zintz**	13.4 Ekwall, Shanker '83 13.2 Bond et al.** 16.7+ Rupley, Blair**	17.1+ Harris, Sipay '85 17.1+ Wilson, Cleland
Clinical	16.7+ Rupley, Blair 16.8+ Gillet, Temple** 17.1+ Harris, Sipay '85** 15.9+ Heilman et al.** 15.7+ Kaluger, Kolson**	13.4 Ekwall, Shanker '83** 17.1+ Harris, Sipay '85* 13.2 Bond et al.	13.2 Bond et al.* 17.1+ Wilson, Cleland*
Ch. Lit.	13.1+ Norton 11.0 Huck 13.4 Sutherland, Arbuthnot*	13.1+ Norton* 14.3 Rudman*	----- -----

* indicates texts equally ranked first

** indicates texts equally ranked second

Elementary Textbooks

Frequency and readability levels. At the undergraduate level 32 texts were reported with Burns et al. *Teaching Reading in Today's Elementary Schools* (16.0) being identified as the most popular text. This text also ranked first in the foundations category. Durkin's *Teaching Them to Read* (14.5) ranked second,and third was Alexander's *Teaching Reading* (14.9) Readability levels appeared appropriate. Of 30 texts reported at the master's level, two ranked first: Durkin's *Teaching Young Children to Read* (13.4) and Ekwall & Shanker's *Teaching Reading in the Elementary Schools* (17.3+), which was also ranked in the foundations category. Four texts equally shared the next position: burns et al. book (16.9), a duplication; Durkin's 1983 text (14.5), a duplication; Lapp & Flood's (16.2+); and Spache & Spache's text (16.9+). Again, master's texts were mixed, with four appearing more appropriate for undergraduates and two appropriate at a graduate level. At the doctoral level, three equally ranked texts were reported: Alexander's *Teaching Reading* (14.9+), a duplication; Dallmann et al. *The Teaching of Reading* (15.7); and Smith's *Understanding Reading* (15.9). All three appeared to be appropriate for undergraduates but not difficult enough for advanced graduate students.

Content Area Reading Textbooks

Frequency and readability levels. Of 22 texts identified for undergraduates, Vacca & Vacca's, *Content Area Reading* (16.6+) was reported as most frequently used. The second was Readence, Bean, & Baldwin's *Content Area Reading: An Integrated Approach* (17.4+); and third was Roe, Stoodt, & Burns's *Secondary School Reading Instruction: The Content Areas* (16.9+). One text appeared appropriate for undergraduates and two more suitable for graduate students. Master's professors reported Vacca's 1981 book, *Content Area Reading* (16.6+), as predominant, followed by Herber's *Teaching Reading in Content Areas* (16.5+) and Readence et al. *Content Area Reading: An Integrated Approach* (17.4), a duplication. Again, texts for the master's level were mixed, with two appearing more appropriate for undergraduates and one appropriate for graduate students. Vacca's 1981 text (16.6+), the only one mentioned at the doctoral level, appeared to be more appropriate for undergraduate students.

Diagnosis/Remediation Textbooks

Frequency and readability levels. Undergraduate professors identified 19 texts. Gillet & Temple's *Understanding Reading Problems* (16.8+) ranked first, followed equally by Guszak's *Diagnostic Reading Instruction in* *the Elementary School* (14.1+) and Zintz's *Corrective Reading* (13.5). All three appeared to be appropriate. Of 20 texts listed for the master's level, Ekwall & Shanker's *Diagnosis and Remediation of the Disabled Reader* (13.4) had the highest ranking, followed equally by Bond, Tinker & Wasson's *Reading Difficulties: Their Diagnosis and Correction* (13.2) and Rupley and Blair's *Reading Diagnosis and Remediation* (16.7+). These master's level texts appeared to be more suitable for undergraduates. Two texts identified at the doctoral level were equally ranked and appeared to have appropriate readability levels: Harris & Sipay's *How to Increase Reading Ability* (17.1+), a duplication, and Wilson & Cleland's text, *Diagnosis and Remediation for Classroom and Clinic* (17.1+).

Clinical Textbooks

Frequency and readability levels. Five of 10 reported clinical texts were identified as most frequently used with undergraduates. Four of the five texts appeared to be appropriate, with the remaining text measuring higher. Rupley & Blair's *Reading Diagnosis and Remediation* (16.7+), a duplication, ranked first. Following and equally ranked were Gillet & Temple's *Understanding Reading Problems* (16.7+), a duplication; Harris & Sipay's *How to Increase Reading Ability* (17.1+), a duplication; Heilman et al. *Principles and Practices of Teaching Reading* (15.9+), a duplication; and Kaluger & Kolson's *Reading and Learning Disabilities* (15.7+).

Three of 21 texts ranked highest at the master's level. The readability was mixed, with one appearing to be appropriate for the graduate level and two appropriate for undergraduates. Sharing first position were Ekwall & Shanker's *Diagnosis and Remediation of the Disabled Reader* (13.4), a duplication, and Harry & Sipay's *How to Increase Reading Ability* (17.1+), a duplication, followed closely by Bond et al. *Reading difficulties: Their diagnosis and correction* (13.2), a duplication. At the doctoral level the two texts used most frequently were equally ranked: Bond et al. (13.2), duplication, and Wilson & Cleland's *Diagnostic and Remedial Reading for Classroom and Clinic* (17.1+), a duplication. One appeared to be appropriate, while the second measured considerably lower for advanced doctoral students.

Children's Literature Textbooks

Frequency and readability levels. The children's literature category appeared to have the fewest texts in print. A total of four books for all degree levels were reported by more than one professor. All four measured low in readability. Three appeared suitable for undergraduates and one for secondary school, but none appeared appropriate for graduate students. The books were reported at the undergraduate level: Norton's *Through the Eyes of a Child* (13.1+) ranked first, Huck's *Children's Literature in the Elementary School* (11.0) was second, and Sutherland & Arbuthnot's *Children and Books* (13.4) ranked third. The researchers doubled the number of samples from the text measuring 11.0 readability but were unable to obtain a higher score. Master's level professors reported two books equally ranking first: Norton's text (13.1+) and Rudman's *Children's Literature: An Issues Approach* (14.3). No textbooks were reported at the doctoral level.

Summary

The purpose of the study was to ascertain college professors' perceptions regarding texts that are used to teach reading courses in foundations, elementary, content areas, diagnosis/remediation, clinical reading, and children's literature. Texts that professors reported were classified and ranked at the undergraduate and graduate levels for frequency of use. Levels of readability were computed and analyzed to determine whether the most widely and frequently used texts were appropriate for the level being taught. Based on responses reported on the questionnaire, the study revealed pertinent information for college professors. Despite a plethora of texts reported in the foundations and elementary categories, a few specific books were used most. No readability pattern emerged to demonstrate that higher education faculty selected textbooks appropriate for the students they teach. The majority of textbooks in the two categories appeared to be most appropriate for undergraduates. Texts suitable for the master's level in all categories were few. Overall, doctoral texts numbered fewest, which may be a result of highly individualized programs at this level. Texts reported in the elementary and content area categories at the doctoral level failed to meet the criterion of readability for advanced graduate students. Duplications across categories indicated that specific courses or areas of reading do not have a common base. For example, Burns et al. text appeared in the foundations and elementary categories at both the undergraduate and master's level. Duplications may have stemmed from a lack of defining foundations courses as either theoretical or practical.

The diagnosis/remediation and clinical categories, which are closely related, understandably had the greatest number of duplications. Some of the duplications occurred across degree levels as well as among categories (see Table 2). Duplications may have occurred because many institutions do not make distinctions between courses which provide the knowledge of diagnosis/remediation skills and clinical courses applying those skills.

Several duplications occurred across degree levels, with Harris & Sipay's 1985 text reported at all three levels. Another duplication included the same Harris & Sipay text, reported in the foundations, diagnosis/remediation, and clinical categories. One perplexing duplication was the presence of Heilman et al. in the clinical as well as foundations category. Duplications across levels and categories appeared to indicate that some college professors use texts which are available but not necessarily suitable for the level or course being taught. Since individual institutions determine course definitions and content, overlap from category to category appears to be less of a concern than duplication of textbooks across degree levels. Regardless of course definition or content, the predominant concern of professors in higher education should be selecting appropriate textbooks which match the advanced abilities and education of graduate students and provide challenging materials.

Conclusions and Implications

The questionnaire revealed that professors adopt textbooks that are readily available. If an appropriate-level text is not available, a text which closely aligns with the course content is selected regardless of the level readability. Readability measures revealed that (a) foundations of reading texts appeared to be suitable for undergraduate and doctoral students but not totally appropriate at the master's level, (b) elementary texts appeared to be most appropriate for undergraduates, although some were used at the master's and doctoral levels, (c) content area books appeared to be most appropriate for master's students, too difficult for undergraduates, but not challenging enough for doctoral students, (d) books categorized as diagnosis/remediation texts were most appropriate for undergraduates, with only two texts being suitable for the graduate level, (e) clinical texts, many of which were duplications, followed the same readability pattern as those used in the diagnosis/remediation category, and (f) children's literature texts, measuring low in readability (with ranges from high school junior level to college sophomore level), were used at the undergraduate and master's levels. Overall, the results of the readability measures indicated that, despite instructors' perceptions, 26 of the 34 most frequently used books appeared appropriate for undergraduates, seven suitable for graduate levels, and one suitable for secondary school level. Fourteen texts were located across degree levels and/or overlapped from category to category. Because college professors' perceptions of the suitability of college reading texts have not received sufficient coverage in periodicals or current research, additional studies need to be undertaken.

Implications of this study indicated that level-appropriate reading textbooks are needed for college and university instruction to avoid the "dumbed down" syndrome. The implications are corroborated by Tyson-Bernstein (1988), who stated that adoption of college texts is limited by the availability. Because professors are limited to texts which are currently on the market, they should consider using readability scores and colleagues' expertise when they make decisions concerning textbook adoptions for undergraduate and graduate students. Variables within formulas tend to increase or decrease readability levels; therefore, several formulas should be applied to each text and a variety of textbooks should be made available for adoption. If indeed textbooks have been "dumbed down" at the undergraduate level, in all probability the books designated for graduate students are also inferior. Additionally, books having readability scores appropriate for undergraduates are currently being used at the master's and doctoral levels, which only serves to perpetuate and aggravate the problem. Publishing companies need to search for potential authors who have reading expertise, are capable of writing expanded, in-depth textbooks to meet the needs of college students, and are capable of infusing the market with textbooks appropriate for the various levels in reading programs.

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Toward a Caring Reading Curriculum

Timothy V. Rasinski

Reading educators tend to think of reading education and reading curricula unidimensionally. That is, we specify one goal for reading instruction: reading achievement. We tend to judge the success or effectiveness of a particular method or approach in reading education on the extent to which the method or approach leads to gains in reading achievement. Methods that lead to gains in achievement, however measured, are determined to be good, desirable, appropriate for school.

Nevertheless, taken within the context of schooling in general, such a unidimensional view of reading is short sighted and has the potential for serious negative consequences. In addition to a goal that is directed at the academic achievement of students, American schools have traditionally maintained another goal which is more social, attitudinal, and affective: a goal variously described as the development of citizenship in students, the fostering of altruism or a sense of caring in children, and the growth of a sense of community and social responsibility in students. While such goals may be described as "soft" or hard to define and operationalize, and their achievement as immeasurable using traditional quantitative procedures, this second set of goals nevertheless has been articulated throughout the development of American schools and is a set of goals against which there is, even today, little dissent from teachers and the general public.

Recent criticism of the schools (e.g., National Commission of Excellence in Education, 1983) has focused on the apparent declining achievement of students in academic areas. The schools, such critics report, are failing to satisfy the academic goal. As a result of this perceived failing the nation is presumed to be at risk of falling behind other countries in technological advancement and innovation.

As a result of such criticism educators have increased their efforts toward improving the academic side of schooling. Programs, methods, and policies have been devised to increase academic performance. These actions may be having some effect, as recent reports of student academic performance in this country have noted.

While these curricular modifications have been welcomed by the public, the changes have in many instances produced an unwelcome and generally invisible side effect. The increased emphasis on academic achievement has led to a decreased emphasis, and in some cases a general abandonment, of the goal of social development, caring, and citizenship in students (Rasinski, 1984). As increased time is given over to academic instruction, less time becomes available for the development of social responsibility and caring. Greater emphasis on academic instruction, allowing for more academic time on task, leads to fewer opportunities in the classroom to talk about and promote caring, citizenship, and altruism.

This scenario is particularly true in the reading curriculum. Modifications in many reading curricula have resulted in an increased emphasis on the so called academic skills of reading (Rasinski & Nathenson, 1987). These skills, for which teachers are held most accountable are then often tested on state-wide or local tests of reading achievement. As a result, teachers feel an obligation to provide extraordinary amounts of instruction in these areas.

Greater emphasis in one area usually means a lessening of emphasis in other areas. This is true of reading instruction. Because teachers need increasingly to emphasize the academic skill areas, fewer opportunities for using reading to foster social development are available. Teachers have fewer chances to discuss from, a caring perspective the motives of a story's characters. Opportunities for using reading and writing to explore one's own feelings toward others or for expressing a kindness to someone else decrease. Students have fewer chances to share a story with a classmate or someone from a lower grade. As a result of the increased emphasis on academics and the neglect of social development, schools run the risk of contributing to the alienation of students from their communities and fellows (Bronfenbrenner, 1974; Rasinski, 1984).

A Caring Reading Curriculum

The increased unidimensionality of the school's reading program produces a hazard that we as reading educators cannot ignore. Reading does not exist in a social, moral, and spiritual vacuum. Reading allows values and ethics to be communicated and reflected upon. Reading can help people to build a sense of community with others.

Thus, reading instruction offers potentially ideal opportunities for helping students develop citizenship, social responsibility, and caring. We need to think of reading instruction not only in terms of the degree to which reading performance can be improved but also in terms of the degree to which students learn to become socially responsible citizens. A reading curriculum that fosters social development I call a caring reading curriculum. In the remainder of this paper I will discuss specific ways a caring reading curriculum can be implemented. Although such methods are well known to teachers and teachers generally acknowledge the need to provide instruction and experience related to social development, even within the context of reading instruction, actual reading instruction is often devoid of any conscious effort on the part of teachers to foster prosocial learning in students (Rasinski, 1989).

First, teachers act as powerful models for their students. Reading teachers should be models of caring persons during reading instruction. This can be implemented in numerous ways. Teachers, above all should listen attentively and responsively to students. Few things for children are more demeaning than to be ignored or dismissed by a teacher when a child has something important to say. Teachers, moreover, should be willing to provide help to students in reading when help is needed. Teachers are often so busy that providing special help to children experiencing difficulty in reading can prove burdensome. Nevertheless, the very nature of caring requires that help be given when needed and/or requested. Although such actions are often subtle and apparently unnoticed by students, the fact is that students have strong memories of teachers who were both caring and uncaring in their behavior toward students. Adults asked to pick a specific positive or negative event in school involving a teacher often choose an event that portrays a teacher as a caring and giving, or conversely, as an uncaring and mean-spirited person.

Grouping practices are a central part of reading instruction. Teachers of reading often group students into relatively homogeneous groups by ability. Even though students are assigned to groups, however, their work within a group is usually done alone. Another relatively popular model of reading instruction is termed individual instruction. Here students primarily work alone on individual lessons prescribed by the teacher.

In both of these models the opportunities to teach caring and allow caring to occur are minimized. Through their grouping practices teachers can have a major impact on students' development of caring and social responsibility. Recent research headed by Slavin (Stevens, Madden, Slavin, & Farnish, 1987) and Johnson and Johnson (Johnson, Johnson, Holubec, & Roy, 1984), for example, suggests that academic and social learning can be expected from grouping students in such a way that they must cooperatively work on an assigned task. In reading, then, teachers should consider having students work together in pairs and small groups on reading-/or writing-related tasks for which the group as a whole must bear responsibility. This could mean something as simple as reading to one another and receiving evaluative feedback from one's own parents or friends, or it could mean working collaboratively on an integrated thematic unit on some topic.

Grouping does not necessarily have to occur only with students at the same grade level. Cross-grade grouping often gives students real opportunities to help others and to be helped. In these situations one student could help one or two other students in lower grades by reading to them, listening to them read, and/or helping them complete challenging assignments in reading. In cases such as these, both the younger and older students benefit academically. Moreover, the older student enjoys the satisfaction of being able to help care for others in need of help.

Careful selection of reading materials and directing discussion of that material after it is read can lead to growth in caring and social responsibility. The reading materials children are given, both in trade books and in basal readers, are not without content reflecting a caring/self-centered set of themes. Shannon (1986), for example, found that recent award-winning children's trade books tended to portray themes that reflected a self-centered perspective on the part of the main character(s).

These underlying themes in school reading material can affect students' notions about caring and social responsibility. Teachers should be certain that at least some of the narrative texts that children are exposed to portray characters whose motivation stems from a desire to be caring and helpful toward others. Moreover, teachers can direct discussion of story material to examine the motivations and orientation to others that those characters portray. Such discussions are appropriate for material that portray characters as selfish as well as caring. By pointing out these characteristics and helping students examine and judge the motivations that drive these characters, teachers will help students grow in an appreciation and understanding of what it means to be a caring person.

Finally, the way a teacher designs his or her reading environment in the classroom can help promote social interactions, caring, and cooperation among students. For example, a teacher can choose to arrange students' desks either to force isolation or to encourage interaction among students. A teacher interested in fostering interaction and caring among students would probably arrange desks so that students can see and talk with others. In addition, teachers should ensure that desks are rearranged often enough so that proximal contact among the largest number of students is achieved. A reading corner in a classroom should be a comfortable place where students can go to read and talk about books with others. Teachers can make the reading corner an inviting place with a minimum of materials. A rug, some old furniture, and some pillows are enough to create an ambiance that invites students interested in reading to come together to share a book or to chat about something that was read. Decorating the classroom with student work and accomplishments in reading as well as in other subject areas, rather than with the dull commercially available materials, demonstrates to students that the teacher does indeed value and care about their work and achievements.

Conclusion

The position taken in this paper is not an attempt to lessen the importance of the academic goal of reading instruction. Rather the point is that it is folly to allow ourselves to abandon the social responsibility, citizenship, and caring goals of schools. Ways to care and ways to teach caring must be integrated into all areas of the school curriculum. Since reading and reading instruction take up a major portion of the elementary-school day and because reading is, to a large extent, a social activity, it is incumbent on reading educators to search for ways to promote the development of caring, citizenship, and social responsibility within the context of academically oriented reading instruction.

In this paper a few approaches for fostering caring during and through reading were explored. There are, most certainly, other ways to promote caring in reading. In the final analysis, however, we must not allow ourselves to forget that through schooling and through reading we are preparing children for a future in the real world. Do we want those students to enter the world with academic skills that can be used only for self-promotion and self-satisfaction? Or would we like to see students using their skills and talents out of sense of citizenship and caring for others? If the second outcome is the one we desire, then we must foster caring and citizenship in students through reading and through the other academic areas.

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A Historical Perspective on Remedial Reading

George D. Spache

Since there is so little current research on the efficacy of remedial techniques, I thought it would be interesting to those of you who don't read the ancient literature of a decade or more ago to contrast the approach to diagnosis I used from 1934 to 1968 with those currently receiving attention.

I was trained as a school psychologist in the Department of Clinical Psychology of New York University. That area of professional psychology was in its beginnings and was defining its techniques and area of function. As I recount the approaches to diagnosis, you will recognize, I am sure, the almost strictly psychometric philosophy that such training imparted.

Each child referred by his or her teacher was first given an individual intelligence test, the Stanford Binet at first, later the Wechsler-Bellvue. We did not attempt to use the I.Q. or M.A. as a measure of the child's potential for improvement because evidence showed these to be invalid predictors. Nor did we use analysis of the patterns of scores on the WISC, again because of the contrary evidence. Marion Monroe was perhaps the first to attempt this kind of prediction, in 1983, when she combined chronological age, mental age and arithmetic computation age. Since poor readers are also prone to be weak in the third element of this formula, her reading index was faulty, like all the other formulas offered since then. Although some try to promote it today, comparison between the verbal and performance scales of the WISC or pattern analysis does not offer much, since they are not factorially pure. Cohen's factor analysis is good in indicating areas to be explored, such as School Learning, Attention or Concentration, and Perceptual-

Motor Speed. These should lead to the exploration of the pupil's history and an evaluation of the possible effects of ethnicity on the test result.

Other suggested measures of potential such as the Goodenough-Harris, the Picture Vocabulary, the Raven Matrices, the Porteus Maze, the Slosson, or the Detroit Learning Aptitude can offer clues but not accurate predictions.

The second clinical approach was a thorough visual screening using the Bausch and Lomb Orthorater's eleven tests. Amazingly, many workers in remedial reading decry the need for careful visual screening, largely because they have not tried to find out exactly how various visual functions affect the act of reading. For example, one textbook author spent months tutoring a college student without success before discovering that he had fusional problems and did not see words exactly the same each time. Our data indicate that almost 20% of college age retarded readers show difference in the acuity of the two eyes and lower acuity particularly in the left eye. This condition can contribute to a marked eye preference, such as that found in 26% of middle-grade pupils, according to the research we conducted and confirmed by parallel studies at the University of Chicago. All cases showing functional difficulties were referred to local optometrists who were active in visual training.

In working with college students, we did not distinguish between reading performances and study skills. Our own tests of the latter gave some clues as to the way the student operated. Answers were discussed with the student and remedial steps outlined. As for reading, we used the Spache Diagnostic Reading Scales to sample oral reading, silent reading and listening comprehension, the latter as a measure of potential—the only measure for which there is some proof of its relationship with future performances. This battery was, of course, used with those reading at elementary levels. For secondary and college students, we used various instruments of the Committee on Diagnostic Reading Tests, of which I happened to be a member.

Each client was tested by the audiometer and an audiogram created. The implications of this were interpreted in relation to the emphasis upon phonics in the remedial program. We did not attempt to reteach letter sounds to college-age poor readers, as so many clinics do. For primary children, an auditory discrimination test was given because of the common teaching of phonics at these ages. If there were any deficits, the exact nature of the reading program being used with the child was explored, and perhaps modified. Intersensory integration, an area of interest in the 60's, was not explored because of the highly conflicting research results. Preferred modalities of the subjects also were not explored since our review of the research on teaching to a modality or using multimodal learning showed these to be weak approaches.

Since we rejected the dyslexia and minimal brain damage theories of retardation in reading, no testing in these areas was performed. We did not believe that there is a specific reading center in the brain, as these theories claims. Likewise, we rejected the measures of laterality, cerebral dominance, lateral awareness and visual perception as irrelevant.

The cultural background of school children was explored by a planned interview with one of the parents, usually the mother. If the referral came from a school, an interview with the teacher was sought. Cultural values, familial relationships, child-rearing patterns, peer and sibling relationships and teacher/pupil interactions were among the areas explored in these interviews.

To explore the child's self concept and personality, we gave the Rosenzweig Picture Frustration Study. This projective picture test samples peer and teacher/pupil interactions. We did a good deal of research with this instrument, learned ways of revising the scoring, and found it very useful.

Contrast this psychometric, test-oriented approach with that offered in the recent IRA bulletin "Reexamining Reading Diagnosis—New Trends and Procedures." In this book, observation has apparently replaced commercial tests. Self-monitoring of stress, judging comprehension by aided and unaided recall in Don Durrell's ancient manner, charts asking a question to be answered generally and in detail, practice in combining sentences to increase language productivity, developing hierarchical summaries are among the procedures common today. Think aloud reading protocols, reconstructing jumbled text, assessing language, and free recall and analyzing retelling are also mentioned. Apparently, to many current practitioners physical and personality factors are unimportant.

(Professor Spache's presentation was part of a series of historical perspectives on policies affecting reading research and instruction offered by members of the International Reading Association's Reading Hall of Fame).

Translating Knowledge into Practice: No Teacher, No Method, No Guru

William Blanton, Gary Moorman, and Thomas Estes

The Cognitive Processes of Teaching

Teaching is an intentional, goal-directed activity that occurs in an environment constantly in flux. Within this environment, teachers have approximately 1500 distinct interactions per day with students whose wide ranges of personal and educational needs and behavioral characteristics (Jackson, 1968). To attain instructional goals, teachers make preactive (before teaching), interactive (during teaching), and postactive (after teaching) decisions. The exact number and rate of decisions during each of these phases of instruction are not precisely clear. However, during interactive instruction alone, Clark and Peterson (1986) suggest that teachers make one decision every two minutes. We can see teachers make interactive decisions; however, preactive and postactive decision making is difficult to observe. In other words, what we see when we observe classroom instruction is just the tip of the iceberg. A great deal of teaching is accomplished before and after the teacher meets with students.

Even routine decision making requires teachers to access and evaluate an overwhelming amount of knowledge, reorganize the knowledge into usable form, and use the knowledge in developing a workable plan of action. As an illustration, take the assignment of a worksheet to a reading group. First, the teacher must decide which worksheet to assign, weighing its potential worth as learning material and judging its appropriateness for a specific student or group of students at a given point in the instructional sequence. Next, the teacher must decide how much instruction is necessary and what kind of instruction (e.g., teacher explanation, modeling, guided practice, independent practice) is appropriate. These decisions must be tempered by judgments regarding the knowledge and skill the students have and the amount of classroom time available. Finally, the teacher must execute the instruction and make the assignment, continuously adjusting to meet the demands of a classroom full of real children. The knowledge the teacher uses in making such decisions is accumulated over a lifetime, from experiences as a student, from information gathered in preservice and inservice training, from experiences as a classroom teacher, and from numerous related and seemingly unrelated personal experiences.

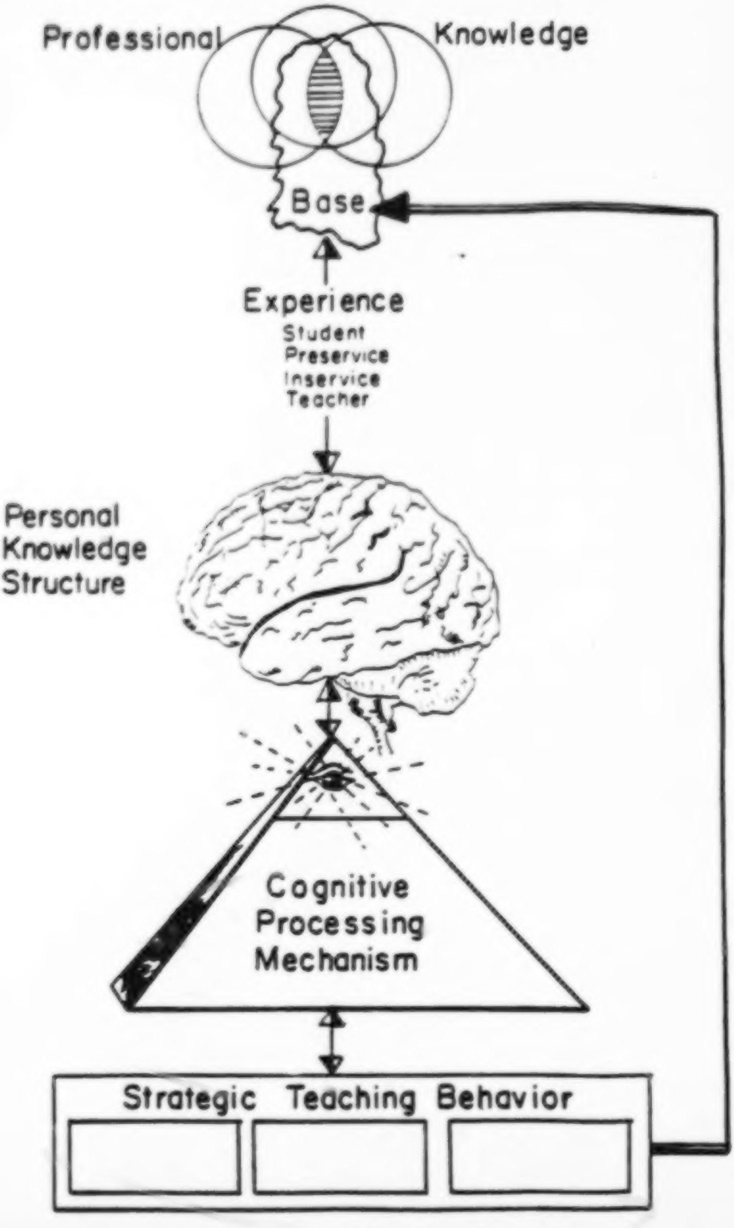
As can be seen, the act of teaching requires that teachers develop and implement plans, identify and solve problems, make decisions, manage events, interact with students, and perform many other activities. Successful performance on these kinds of tasks requires both breadth and depth in particular areas of knowledge. To understand successful teaching performance, we need a conceptual framework that describes the interrelationship among a number of important variables, such as professional information, personal knowledge, cognitive processing (thinking), and strategic teaching behavior (doing).

The purpose of this paper is to develop a conceptual model of teaching. First, we will discuss the broad components of the model. This will be followed by a more detailed discussion of each component. Last, we will explore how teacher's develop their "wisdom of practice."

A Conceptual Framework for Strategic Teaching

At its most general level, teaching involves at least four variables (Figure 1). The first variable to be considered is a *professional knowledge base*. This is the knowledge that exists "out there"; it is the abstract information that forms the basis of professional behavior. It can be found in education classes in the university, in professional journals and books, in conference presentations, in informal discussions among teachers, in teacher inservice sessions, or any exchange of professional information. Next, each professional organizes professional knowledge into a *personal knowledge structure*. The third level of our model contains a *cognitive processing mechanism*. Simply put, this mechanism enables teachers to "think" with knowledge stored in their personal knowledge structure.

FIGURE 1

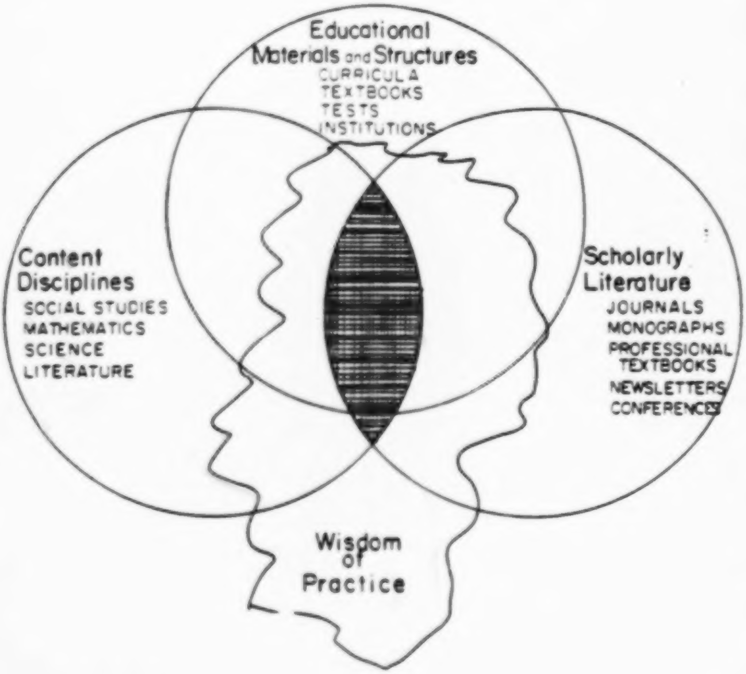

Professional
Knowledge
Base
Experience
Student
Preservice
Inservice
Teacher
Personal
Knowledge
Structure
Cognitive
Processing
Mechanism
Strategic Teaching Behavior

The final level of our model accounts for how teachers intentionally use the knowledge they possess to perform *strategic teaching behavior*. Strategic teaching behavior includes those things teachers do before they teach students, as they are face-to-face with students during teaching, and after teaching.

Now we turn to a more detailed presentation of each component of our model. These will be presented in Figures 2-6.

FIGURE 2

PROFESSIONAL KNOWLEDGE BASE


Educational
Materials and Structures
CURRICULA
TEXTBOOKS
TESTS
INSTITUTIONS
Content
Disciplines
SOCIAL STUDIES
MATHEMATICS
SCIENCE
LITERATURE
Scholarly
Literature
JOURNALS
MONOGRAPHS
PROFESSIONAL
TEXTBOOKS
NEWSLETTERS
CONFERENCES
Wisdom
of
Practice

Professional knowledge. Figure 2 presents the abstract body of professional knowledge that describes the domain of the discipline of education. Shulman (1987) enumerates four major sources of this knowledge. First, there is the knowledge of content disciplines (subject matter), mathematics, science, history, reading, music, art, health and physical education, etc. Subject matter content identifies and organizes the knowledge, skills, and attitudes to be learned by students through schooling. Second, educational materials and structures represent the knowledge contained in the formal organization of school. Knowledge of this kind includes curricula, textbooks, instructional strategies, and tests, as well as information embodied in the institutions of schools themselves. Third, there is the body of scholarly literature on teaching, learning, and schooling. This is the continuously expanding body of knowledge that provides the scientific basis for teaching.

Unlike the well-organized and codified knowledge of first three sources of professional knowledge, the last source of knowledge is not well organized, and existing as an ill-structured knowledge domain (Spiro, 1984). This source is often called the "wisdom of practice." Knowledge of this kind is acquired by teachers as they work and reflect on the results of their teaching.

The relationships among these four scores of knowledge are best presented by a Venn diagram, as illustrated in the figure. While it is convenient to separate these sources for purposes of discussion, they actually overlap and interact. "Wisdom of practice," for example, develops in relation to the structure of knowledge provided by scholarly literature in a context determined by educational structures.

FIGURE 3
PERSONAL KNOWLEDGE STRUCTURE

Theoretical	Content	Curricular	Pedagogical	Management and Routines	Contextual
Declarative Procedural Conditional	Declarative Procedural Conditional	Declarative Procedural Conditional	Declarative Procedural Conditional	Declarative Procedural Conditional	Declarative Procedural Conditional

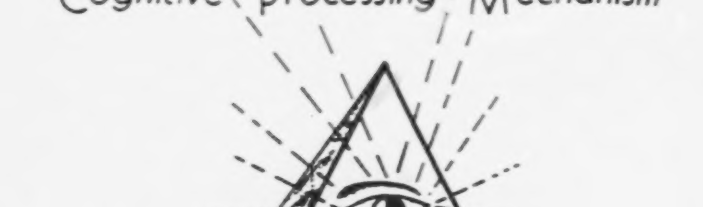
Personal knowledge. The second level of the model (Figure 3) represents personal knowledge. Knowledge of this kind is acquired during preservice and inservice education and personal experiences as a student and teacher. One's personal knowledge, then, can be viewed as a schema for teaching (Conley, 1984; Shavelson, 1985), a highly organized personal knowledge structure. We propose that teachers' schemata for teaching contain at least six slots.

The first slot is for theoretical knowledge. This slot holds the logical structures in which abstract ideas are used to explain and understand the events of teaching and make them more meaningful. Next, content knowledge represents the amount and organization of domain knowledge. This knowledge might be viewed as a personal cognitive mirror of the discipline knowledge found in level one of our model. Third, curricular knowledge delineates the scope and sequence of content that has been organized for learning, such as the progression in reading instruction from short, simple text to lengthy complex text. Next, pedagogical knowledge contains the tools and materials for teaching, such as approaches to instruction, methods, strategies, measurement instruments, and lesson frameworks. This slot is the teacher's cognitive tool box, a repertoire of general and specific instructional activities. Fifth, management and routine knowledge contains information about repetitive procedures teachers use to maintain an orderly educational setting and to perform ordinary teaching activities. Last, contextual knowledge is organized around the speculative nature of instructional decision making in classroom settings. This space contains the information teachers need for making setting-specific decisions and includes information that allows them to make the kinds of reasonable judgments necessary for classroom management (Lampert, 1985).

The personal knowledge contained in each slot of the teacher's schema may be separated into three forms: declarative, procedural and conditional (e.g., Paris, Lipson, & Wixon, 1983). Declarative knowledge (knowing what) represents the known facts, propositions, relationships and patterns or kinds of knowledge. Mastery of other forms of knowledge often builds on declarative knowledge. Procedural knowledge (knowing how) describes the algorithms, procedures, and heuristics for potentially useful ways to accomplish tasks such as teaching. Next, conditional knowledge (knowing when and why) denotes the conditions under which it is appropriate to execute procedural knowledge.

Generally, information about teaching and learning is stored as it is encountered in teaching situations. Information in preservice educational courses is usually presented and stored in one's schema for teaching as declarative or procedural knowledge. In terms of initial learning and recall, there is little preference for what form knowledge is stored in memory. However, it appears that knowledge is recalled more efficiently during the course of strategic teaching behavior when it is "conditionalized" (Paris, Lipson, & Wixon, 1983), that is, cues for recalling useful information are associated with classroom conditions. Thus, conditional knowledge includes cues that guide the recall of relevant knowledge during teaching.

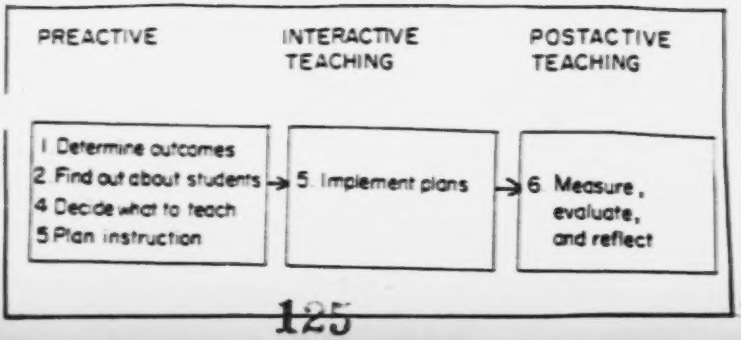
Figure 4
Cognitive Processing Mechanism


ASSEMBLE KNOWLEDGE
MAKE DECISIONS
ACCESS KNOWLEDGE
IDENTIFY PROBLEMS
INTEGRATE KNOWLEDGE
REFLECT
REFORMULATE KNOWLEDGE

Cognitive processing mechanism. Figure 4 presents the third level of our model, the cognitive processing level. From our perspective, seven salient cognitive processes are involved in teaching. First, teachers *access* knowledge (information) stored in their teaching schemata. Second, teachers *assemble knowledge* (put together mental pictures and/or organizations of knowledge) into a temporary model of reality (a prediction of what should be). This model allows teachers to predict events, understand infrequently observed events, assemble known solutions or invent solutions to problems and generally conduct instruction. Third, teachers *integrate* (put new information together with old information) into their existing schemata information they select from the instructional environment as they teach. This information is usually stored in memory in conditional form (associated with what was happening in the classroom). Next, teachers constantly *reformulate* (reorganize) the knowledge already stored in their schema. Reformulating knowledge enables teachers to "read" or make sense out of what is happening in their classrooms and to anticipate and/or identify problems. Once a problem has been identified, it is then possible to *make a decision* about solutions to the problem or steps for creating solutions to the problem. Teachers also produce personal knowledge about teaching as they *reflect* (think retrospectively about what happened). Ongoing reflective thinking enables teachers to develop *strategic knowledge* about teaching (internalization of classroom conditions defining problems and/or potential problems, along with reasonable solutions). Thus, the process of teaching is itself a dynamic interplay between a teacher's existing knowledge and knowledge obtained during teaching in the classroom environment. This interplay makes it possible for teachers to use their knowledge to identify and solve problems, make decisions, reflect on instructional events, and, in turn, develop strategic knowledge.

FIGURE 5

STRATEGIC TEACHING BEHAVIOR



Strategic teaching behavior. The next level of the model (Figure 5) represents strategic teaching behavior. Strategic teaching is accomplished when a teacher has two or more alternatives for solving a problem or completing a task under consideration at one time. Although teachers have many responsibilities, we believe they perform six basic daily tasks. These tasks are best conceptualized in relation to the three phases of teaching: a) preactive teaching (*determining outcomes, finding out about students, deciding what to teach,* and *planning instruction*); b) interactive teaching (*implementing plans*); and c) postactive teaching (*measuring and evaluating*). These tasks are completed successfully when teachers regulate their knowledge structures, cognitive processes and teaching activities.

Strategic teaching behavior, as we pointed out earlier, involves making decisions about a number of alternatives relevant to teaching tasks. As might be expected, teachers must know a great deal of knowledge in order to make the "best" decision for a particular student or group of students at any point in time. Thus the quality of the teacher's instruction provided by the teacher is determined by the quality and accessability of the knowledge that guides the teacher's behavior.

To this point, we have explored the complex cognitive act of teaching. We have attempted to build a model that demonstrates the relationship among abstract professional knowledge, what teachers know, how teachers access what they know during planning, implementing and evaluating instruction, and how a teacher behaves. Teaching is largely an invisible act, a cognitive analysis of possible activity that would lead to specific educational outcomes. It is the professional responsibility of all teachers to develop a rich and functional understanding of what is currently known about education.

The Wisdom of Practice

We will now turn our attention to the "wisdom of practice." We have come to believe that good teachers develop common insights about effective instruction. Further, we see these insights as having a basis in the research literature. However, we do not believe that most teachers gain these insights by reading the literature or by being informed of the research through preservice or inservice education.

How is it that teachers are able to learn from their experience in the classroom? Sternberg's (1986) theory provides a lens for examining the phenomenon. Knowledge acquisition in situations such as teaching depends on the process of insight. Cognitively, this includes three interrelated functions. First, selective encoding permits the teacher to select from the barrage of sensory input those distinctive features which are crucial to making sense of instructional events in classrooms. For example, during a recitation session, the classroom might become unruly. Numerous plausible explanations are possible, including a disruptive behavior by a single student or group of students, a distraction outside the classroom, the amount of "wait time" provided after a question, the level of questioning, the students' interest in the topic, the students' interest in an unrelated event (e.g., tonight's game), or any of countless reasons. Selective encoding allows the teacher to select from available classroom cues information that will provide a basis for taking appropriate action.

The second function of insight is selective combining. This involves taking information and combining it in novel and insightful ways. In a complex strategic activity like teaching, it is unwise to base further action on a single piece of information. Continuing the example above, the teacher might begin to combine available information to make sense of the situation. The thought process might go something like: "I can't see any single student or group of students is responsible for the disruption. It appears that the class generally is in a disruptive mood. I know there is a big basketball game tonight, and the students all seem restless. I have been asking abstract, higher order questions about what they have been reading, but they are not overly difficult for this class. The wait time I am providing appears to allow for disruptions to begin." In this example the teacher sorts through information provided by the classroom and school setting, combining salient features while discarding improbable ones.

The third function is selective comparison, or the relating of new information to knowledge stored in the teacher's schema. In our model, the cognitive processing mechanism at the third level taps into information stored by the teacher at the second level. The cognitive processing mechanism is activated by cues in the classroom environment, and the information most likely to be tapped is stored schematically in a conditional form that resembles the current conditions in the classroom. Pursuing our example, the teacher now thinks, "What do I know about question levels and wait-time? I know that higher level questions require more wait time, but I also know from the teacher-effectiveness research that lower level questions at a brisk pace provide for more effective classroom management. Given the conditions in the classroom today, I think I will simplify the questions and pick up the pace. I will also be more aggressive about calling on non-responders." In this example, the teacher has drawn on conditional knowledge relevant to the information that has been selectively encoded and combined.

From our perspective, teachers build wisdom of practice by interrating between the professional knowledge base and specific events in the classrooms. A classroom event may be the stimulus for a teacher to assemble potentially useful knowledge to solve a problem. The teacher may use information from the research base, modifying it to meet the needs of the situation. Or the teacher may "invent" a transient solution to the problem. In either case, the teacher has applied potentially useful knowledge in an appropriate manner.

The remainder of this paper presents examples of wisdom of practice observed in the classrooms of teachers. We try to build a bridge between those practices and the research base. We identify 10 insights that appear to have a high concurrence between the professional knowledge base and the personal knowledge structures of good teachers. What is not clear is how teachers acquire this knowledge and use it as a basis for professional judgment.

Examples of the Wisdom of Practice

Good Teachers are in Charge of Their Classrooms

a. Keeping the class on the point of the instruction.
b. Maintaining discipline in a fair and consistent manner.
c. Ensuring the reliability and validity of evaluation.
d. Establishing routines for
    1. Management
    2. Support
    3. Exchange

Research on classroom management is quite clear on the fact that good teachers establish a system of control as soon as possible in organizing each new class of students. However, the objective of expert teachers is instruction, not management (Leinhardt, Weidman, & Hammond, 1987). Expert teachers agree the first few days of school are critical in establishing and practicing instructional and managerial routines for the smooth operation of the classroom. A substantial line of research supports this insight (Emmer & Evertson, 1980; Duke, 1982). The classroom is a social context in which it is of great benefit to everyone for each member of the group to feel a personal responsibility for the accomplishing of shared goals. Furthermore, each student in the classroom must understand that certain automatized routines make those goals attainable. Leinhardt et al. (1987) label three basic kinds of routines which need to be established:

1. Management routines, for housekeeping, discipline, maintenance, and people-moving
2. Support routines, for the behaviors of the teacher and the students to keep lessons running smoothly
3. Exchange routines, for the give and take of instruction.

To make these routines automatic, good teachers tell their students what they expect, demonstrate it for the students, guide the students in practicing expected moves, and accept no less than mastery execution of the routines necessary for successful learning and instruction. It is important to note that demonstration and guidance aimed at correct routine are more effective than later correction of errors in routine. "An ounce of prevention" is the watch word in classroom management.

Good Teachers Create a Pleasant Physical Environment for Learning

a. Designing displays

b. Adjusting the physical environment

c. Minimizing disruptive announcements

d. Arranging for varied seating patterns

In the landmark study *A Place Called School*, John Goodlad (1984) paints the picture of the typical American school and classroom—aesthetically drab and emotionally flat. But adequate work space and a pleasant environment for learning are undoubtedly associated with student motivation and achievement (Rutter, et al., 1979). There is little the individual teacher can do to create an attractive school building, but the tone of the individual classroom is very often under the control of the teacher and the students who share the room.

Good Teachers Manage Human Relations Effectively

a. Knowing their options

b. Making appropriate choices

Lashley (1981) has suggested these four generalizations about classroom and behavior management that the research will justify.

According to his extensive review of the literature on the issue of classroom management, the effective teacher:

1. Develops and implements a workable set of classroom rules
2. Structures and monitors the classroom in a manner which minimizes disruptive behavior
3. Clearly defines and quickly and consistently responds to inappropriate behavior
4. Couches the response to inappropriate behavior in a tone which does not denigrate the students to whom the response is directed.

Good Teachers Engage Learners in the Process of Their Own Learning

a. Placing learners in as direct contact as possible with what is to be learned

b. Providing frequent opportunities for learners to explain what they understand.

Learners will learn more in proportion to how engaged they are with what they are trying to learn. This is the "law of meaningful processing" (Anderson, Mason, & Shirley, 1984), though in some senses it is a law violated all too often. Not all students have the same time for learning in school (Squires, Huitt, & Segars, 1983), and it is sadly the case that the students who need the most time to learn may be given the least. For example, Brady and his colleagues (1977) suggest that the times of engagement vary from 90% to 4% of class time for different students in different classes throughout the day. To complicate matters even further, Bloom (1976) has suggested that the academically lowest 10 percent of students might need five to six times as long to learn the same thing as the academically highest 10 percent.

Good Teachers Teach Up; They Know That Learners Will Usually Live Up to What's Expected of Them

a. Capitalizing on what students know

b. Celebrating differences among students

c. Knowing there is more than one right answer to important questions

d. Recognizing achievement and minimizing the importance of error.

Since the late 1960s, the Pygmalion effect has been part of the common knowledge in education, made famous by Rosenthal and Jacobson (1968) in their research on the effects of teacher expectation on student performance. Essentially, this research asserts that the teacher's expectation that the student will do well can have a positive effect on the academic success of the student. The other side of the coin—that teachers do treat highand low-achieving students differently, to the detriment of the low-achieving student—has also been brought to light by research (Brophy, & Good, 1972). Good (1981) lists the ways teachers most often differentiate their treatment of the high and low achievers in their classrooms:

1. By seating low-achieving students farther away from the teacher
2. By paying less attention to low-achieving students
3. By calling on low-achieving students less frequently to answer questions
4. By giving low-achieving students less time to answer questions when they are called on
5. By providing no cues nor asking follow-up questions to help low-achieving students answer questions
6. By criticizing low-achieving students more frequently for incorrect answers
7. By giving low-achieving students less praise for correct or marginal responses
8. By giving low-achieving students less feedback and less detail in the feedback they are given
9. By interrupting the performance of low-achieving students more often than that of the high-achieving students
10. By demanding less effort and less work from low-achieving students than from high-achieving students.

Good Teachers are Good Learners

a. Continuing their own study

b. Learning from teaching.

The half-life of human knowledge is about six years (McTigue & Schollenberger, 1985). This is as true in education as it is in the sciences, as the sheer volume of what we know about what we teach and how to teach it increases exponentially. (It's probably no coincidence that most school systems adopt new textbooks every five years.) The teacher who doesn't continue to study the education profession may soon be as outmoded as yesterday's newspaper. The antidote is continuous staff development, available to virtually all teachers, only waiting to be taken advantage

Little (1981) identifies four factors that encourage the teacher initiative that makes this possible:

1. Mutuality, respect, and collaboration among teachers
2. Multiple administrative mechanisms for cooperative planning among teachers
3. Opportunities for continuous learning by teachers, opportunities which are problem-centered, involve experiential application, and are properly sequenced
4. Mutually conducted evaluation of program effectiveness.

In addition to keeping abreast of in the literature of their practice (as any professional must), the teacher is in a position to be his or her own best director of research and development. Perhaps it wouldn't be much exaggeration to say that the observed result of every teaching experience forms the basis for refinements and improvements in teaching. Here, in Figure 6, is a simplified model of the action research we have in mind, called the IPO model:

Figure 6.

INPUT

(all that goes into a lesson or unit)

is the basis of

PROCESS

(all that occurs in the teaching/learning)

and leads to

OUTCOME

(all that results from the process)

If the observed outcome of the teaching/learning process (what the teacher and students do) is what was expected, the input and the process must have been appropriate. But any discrepancy between the expected outcome, formed on the basis of the instructional objectives, and the observed outcome reflects a shortcoming in either the input or the process or both. The IPO model will apply in virtually all teaching situations where the teacher has some degree of control over input (what to teach and what to teach with) and process (how to teach) and can make appropriate changes in either or both factors of teaching. Using the IPO model makes the teacher a student of his or her own experience.

Good Teachers Set Clear Objectives and Develop with Learners Ways of Achieving those Objectives

a. Initiating a unit of study by asking students
    1. What they already know about the topic
    2. What they think they want to know in addition
    3. Where they might find that information
b. Providing students with many different means and sources to accomplish the same objective
c. Giving learners opportunities to help each other achieve the shared objectives

Many studies of effective instructional practices make clear that teaching which builds on what learners already know leads to higher achievement (Anderson, 1981). This is the logical conclusion of an entire line of research under the rubric "schema theory" (Anderson & Pearson, 1984).

Good Teachers Know That if the Plan Isn't Working, They Must Find Out Why

a. Analyzing the problem and redesigning the instructional plan.
b. Treating problems as challenges rather than as threats. Anderson (1982) has summarized the major conclusions to be drawn from the vast body of literature on effective teaching. Effective teachers, he suggests,
    1. Know their students
    2. Assign appropriate tasks to their students
    3. Orient their students to the learning tas.
    4. Monitor the learning progress of their students
    5. Relate teaching and testing, testing what they teach

6. Promote student involvement and engagement in the learning process
7. Provide continuity for their students so that learning tasks and objectives build on one another
8. Correct student errors and misunderstandings.

Good Teachers Strive for Ways to Make What They Teach Interesting

- a. Building the curiosity of learners
- b. Helping learners connect
    1. What they are learning and what they know
    2. What they are learning in school and the "real world"
    3. The same information in different disciplines.

Curiosity must be nurtured if it is to flourish. Dewey (1916) once remarked that "curiosity is not an accidentally isolated possession; it is a necessary consequence of the fact that an experience is a moving, changing thing, involving all kinds of connections with other things." The key to curiosity rests in the idea of connections. To teach in ways that make information interesting to learners helps them see the connections between what they are learning and what they know, between what they are learning in school and the "real world," and between this information and the same information in other disciplines.

Good Teachers Know that Learning is Most Likely to Occur When Learners have Access to Information and Opportunity to Practice

- a. Presenting accurate information in palatable form
- b. Providing ways for students apply information in the solution of problems which require it
- c. Guiding students to knowledge of
    1. What to do with information they have gained
    2. When it is appropriate to do it.
    3. Whether the uses of the information have been successful or not.

The Research Connection

Research on effective schools points unequivocally to this generalization (Fisher, Marliave, & Filby, 1979). But what kind of information and practice are appropriate? There is a sense in which the information students need is more than facts, data, and algorithms. Likewise, the practice they need is more than the behaviors implicit in the specific learning objective they have been given. Paraphrasing from a research report by Yinger (1987), we can identify these other sorts of "metainformation" as (1) knowledge of what to do with information they have gained, (2) knowledge of when it is appropriate to do it, and (3) knowledge of whether the uses of the information have been successful or not.

Perkins and Salomon (1988) describe the practice learners need (in addition to applying or recalling information) as practice in "low road" and "high road" transfer. Low road transfer is direct application of information to contexts and problems like those in which the information was first encountered. High road transfer is indirect application of information to contexts and problems unlike those in which the information was first encountered.

The summary explanation offered by Perkins and Salomon is this:

> When teachers introduce a literacy classic with reference to the related experiences of their students, they are creating conditions for "low road" transfer. When teachers point out parallels between the elements of content, such as the points of comparison between the treatment of blacks in the United States before the Civil War and in South Africa today, they are facilitating "high road" transfer. (p. 27)

It is always important to keep in mind that long-term, meaningful learning will depend on the access students have to good information and the opportunity they have to transfer and apply the information to make it both meaningful and memorable.

Summary

In this paper, we have proposed a cognitive processing model of teaching. This model views teaching as a complex interaction among a professional knowledge base, a personal knowledge structure, a cognitive processing mechanism, and the performance of strategic teaching behavior. One of the outcomes of this interaction is the development of "wisdom of practice," which is a result of the process of insight. This occurs when the teacher selectively encodes information from events in the classroom, selectively combines the information in novel and insightful ways, and selectively compares the information to knowledge already stored in a teaching schema. The outcome is a new and highly useful understanding about teaching.

As the knowledge base of teaching matures, there is more concurrence with research and the wisdom of practice. We present 10 examples of wisdom of practice buttressed by research. These are that good teachers

1. Are in charge of their classrooms
2. Create a pleasant physical environment for learning
3. Manage human relations effectively
4. Engage learners in the process of their own learning
5. Teach up expecting learners to live up to high expectations
6. Are good learners
7. Set clear objectives and develop with learners ways of achieving those objectives
8. Know that if the plan isn't working, they must find out why
9. Strive for ways to make what they teach interesting
10. Know that learning is most likely to occur when learners have access to information and opportunity to practice.

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Three Apocalyptic Horsemen

Wayne Otto

(This paper is one of a series on the topic "Changing Class Practices: Roadblocks and Detours")

Overview of the Topic

Our topic for this session is "changing classroom practices: roadblocks and detours." I will be the first to agree with you that it is not exactly a new topic. In fact, I think that the topic is addressed by the cave scratchings that were recently discovered in the south of France, although anthropologists are still arguing. Some of the younger ones claim that what we have there in the cave is speculation about what has become of Elvis. Kaybeth is more conservative; she is convinced that Rousseau first raised the topic in a marginal note—since lost—on one of his early drafts of *Emile*. And Bernie insists that the first semi-documented raising was in a notation on the blackboard in the University of Heidelberg faculty lounge located in the back room of the Heidelberg Vista Bar and Grill, circa 1608. Unfortunately for Bernie's position, the board was cleared by the night janitor before the notation could be formally noted by local historians; all that's left is oral history, based on a passing allusion to that notation in a single obscure line of a then-popular drinking song that ceased to be sung shortly after the alleged notation was noted by the lyricist.

Be all that as it may, there is complete agreement among all parties that the topic has indeed stood the test of time and that the issues it raises have withstood resolution despite the attentions of astute and dedicated scholars. Lest our approach to such a venerable topic and its associated conundrums be thought so bold as to border on the unseemly, be assured that I speak for the entire panel when I say that we approach it with all due humility.

We'll give it our best shot.

As we see it—and as many others before us have seen it—the main roadblock in the way of changing classroom practices is this: Teachers' behavior in their classrooms is influenced more by situational considerations than by instructional intentions or needs. But the importance of this roadblock may be exaggerated by the fact that discussions of what might be done to overcome the problem have been limited to what teacher educators and teachers themselves can or should do to change things. These discussions have not been very fruitful. A more promising approach, we think, might be to identify critical situational factors that could be changed in ways that would result in a more hospitable context for change.

In other words: What changes ought to be made in the structure of schools and classrooms and in the training of, and the communication with and among, teachers as a precondition for change in teachers' instructional behaviors in classrooms? In each of our three presentations, we will briefly discuss (a) a set of factors that not only seem to need changing but also seem open to change and (b) an approach to bringing about those changes.

Three Apocalyptic Horsemen

Before I settle down to talking about changes that I think could conceivably be wrought, I want to acknowledge that I am deliberately sidestepping what I believe are the three major roadblocks to change insofar as reading instruction is concerned: basal readers, graded schools, and standardized achievement tests. Together, these three forces appear to be as irresistible as the powers of war, famine, pestilence and death, the Four Horsemen of the Apocalypse. They are reading instruction's three apocalyptic horsemen; but in this case, they are horsemen that block change, not bring it.

So long as most reading instruction continues to be driven by the dead hand of basal readers, so long as teachers', parents', and pupils' perception of progress in reading is dictated by whimsical "grade level" expectations, and so long as children's success in reading is defined in terms of other children's failure, I am convinced that change will continue to be slow, difficult, and painful. But I am equally convinced that our three horsemen are so solidly saddled as to be virtually unseatable in the foreseeable future. Big bucks, vested interests, and dearly held folkways and beliefs augur against it.

So rather than tilt with unseatable horsemen, I will suggest an end run.

Teacher Power

In her book *The Politics of Reading* Jo Fraatz points to what I believe amounts to a very important situational change: Recognition that it's classroom teachers who wield the power in schools. (I am not really trying to weasel out of our promise to look to situational factors that can be changed, rather than teachers' and teacher educators' behaviors and beliefs *per se*; certainly the latter are involved in Fraatz's "directions for change." But I think that a more realistic recognition of the power that resides with classroom teachers amounts to a very significant and substantial contextual, or situational, change. In other words, a change in the way teachers' power is perceived, amounts to a change in the rules of the game which not only permits but encourages the game to be played differently.)

Despite their claims that they feel powerless, badgered by legislation, administrative edicts, and the demands of special programs, Fraatz says, teachers wield the power in schools. The power, she says, resides in the fact that for the majority of poor children, schoolbased opportunities to learn to read are confined to the classroom or, even when additional services are available, keyed to the structure and services of the classroom. Tradition has it that compensatory and other special programs *supplement* rather than *supplant* children's classroom experiences; and longstanding practice has it that remedial specialists, principals, and parents emphasize "coordination" of their programs and efforts with the classroom program.

This serves to subordinate the efforts of "other" adults to the preferences and practices of the classroom teacher. The result is that adults at every level of the school consent to, and cooperate with, the classroom teachers' plans, so classroom teachers acquire still more resources for the exercise of power and influence.

Now I am not suggesting that teachers have grabbed or usurped this power. As I told my friend Fats Grobnik (Otto, 1988), teachers may wield most of the power when it comes to teaching reading; but like front line troops on a World War I battlefield, they wield it mainly because they are there at the point of contact, not because they have usurped it or sought it out. And, like those soldiers, they are so busy coping with minute-to-minute complexities and uncertainties that they have very little left for dealing with individual differences or with the plans and aspirations of the grand strategists. They may have most of the power, but what teachers *feel* is all the responsibility; so it is a small wonder that they tend to see what may be offers of support and cooperation more as demands and pressures.

Directions for Change

Fraatz offers some "directions for change" based on her study and on her view of teachers' power.

In the first place, she says, educators have to rethink their notions about students' educational strengths and weaknesses. As it is, educators' thinking is conditioned by the means schools use to deliver educational services; so "when judged against the backdrop of the classroom experience and the skills it requires for success, economically deprived children look educationally deprived as well" (p. 95).

In other words, poor kids—in fact, *any* kids who are "failing"-look bad because they are judged from a perspective that mobilizes bias. What's needed, Fraatz says, is a new model of ongoing dialogue in the school setting, where educators become conscious about *what* they are doing in order to become critical about *why* they are doing it.

Once teachers' perspectives regarding students' strengths and weaknesses change, Fraatz says, teachers must recognize "the extent to which their educational plans shape the agendas of every other participant in education—children, parents, specialists and administrators" (p. 197). Coming to terms with the real power and resources they already have should set them free from the struggle for classroom control. The realization that they needn't be in control to be powerful should promote a shared willingness to tolerate ambiguity. Then, with a new tolerance for uncertainty, teachers would be more inclined to pursue innovative thoughts and actions, both in and out of their own classrooms.

Fraatz's final suggestion is that teachers have to get out of their own classrooms and give up some of their autonomy. When teachers keep to their classrooms, that context becomes their only source of rewards; so there is no incentive to take risks by making significant changes. And as long as teachers hold onto all the capacity and responsibility for educational planning, the range of possibilities available outside the classroom is seriously—and needlessly—curtailed.

Being Open and Venturesome

To sum up, then, it seems to me that teachers present themselves with a major roadblock to positive change—more explicitly, to unshackling themselves from the dead hand of the basal reader, the arbitrariness of graded schools, and the tyranny of standardized tests —when they fail to recognize, cherish, and exercise the power that is theirs. A critical precondition to changing teachers' classroom behaviors, then, is changing the way that the locus of power in schools is perceived. With a more realistic view of the locus of power, teachers could be less concerned about classroom control and perceived demands of "others," and more concerned—and much more open and venturesome—about plans and aspirations for children with wide-ranging strengths and weaknesses.

Fraatz's study is, I think, a substantial step in a positive direction. Whether one agrees with all of her conclusions and recommendations, her evidence regarding the true locus of power in the teaching of reading is convincing. A clear—and, one hopes, more realistic—understanding of where the power is, insofar as the day-today teaching of reading is concerned, could indeed clear the way for a sufficient revision of the rules to get us a new and better game.

To be more explicit: I think that if classroom teachers would recognize—and acknowledge, along with the rest of the educational establishment, including parents—that it is they who call the shots when it comes to teaching reading, then they might be less inclined to be bullied by basal readers, goaded endlessly by grade level expectations, and traumatized by tests. Those who wield the power, and know they wield it, can afford to negotiate . . . and to take some chances.

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Developing Professional Teachers: Encouraging Change and Inquiry

Bernard L. Hayes

(This paper is one of a series on the topic
"Changing Classroom Practices: Roadblocks and Detours")

In this discussion of how to encourage change and inquiry among preservice teachers, what I describe is more a goal than a reality-more an approach than a program. But I would like to share some thinking that forms the basis for much of what I try to do in my reading class.

Basically I, like many other teacher educators, take the position that controversies regarding the teaching of reading remain and are not likely to disappear. But teachers can make a difference regardless of the theoretical position they take on these issues. Most studies are unable to determine whether this or that method makes a difference, but few studies fail to establish that the teacher makes a difference. If teachers will take the time to review their own beliefs and to develop practices based on those beliefs, children will learn to read. Frank Smith has addressed this concern when he states that

> Many teachers are trained to be ignorant, to rely on the opinions of experts or supervisors rather than on their own good judgment. The questions I am asked after lectures to teachers [on the topic of reading] are always eminently practical—how should reading be taught, which method is best, and what should be done about a real-life child of eight who has the devastating misfortune to read like a statistically fictitious child of six? Teachers do not ask the right kind of questions—instead of asking what they should do. . ., they should ask what they need to know in order to decide for themselves. . . .

However, for teachers to "decide for themselves," it will require an understanding of the power they possess and a willingness to use that power. They must also be aware of the obstacles that stand in the way of their effective use of such power. I agree with Otto (1988) that we are unlikely to unseat the three Apocalyptic horsemen: basal readers, graded schools, and standardized achievement tests. However, if we are going to remove them as major roadblocks to positive change in teachers' exercise of power, they must be confronted in some way. An understanding of the role these three factors, particularly commercial materials, may play as obstacles can best be seen as preservice teachers examine their preconceptions and misconceptions of how they contribute to effective reading instruction.

In discussing how these factors may prevent teachers from assuming a more professional role, I will address two important conditions that Otto suggests ought to happen with teachers if they are to become more professional. One, they must unshackle themselves from commercial reading material; and two, they must become more tolerant of ambiguity.

Changing Belief and Values

One faces two types of problems when working with preservice teachers in reading: those that relate to values and beliefs and those that relate to skills and knowledge. While these problems are related, I will discuss them separately, to provide an overview of much of what I believe must be done if teachers are going to accept the responsibility to decide what happens in their own classroom.

Teachers' beliefs and values are critical to the success of the reading program. Teachers must believe that they are capable of helping each student acquire the essentials of reading. They must feel that student failure is not acceptable and that student success and failure depend largely on what happens in their classrooms. However, if what happens in their classroom is controlled by basal readers and standardized tests, many children will continue to fail.

It is my opinion that preservice teachers have many conceptions regarding these areas. My impressions are gleaned from both my own experiences in working with teachers and from studies of elementary reading instruction: (1) teachers believe that commercial reading materials can teach students to read (Austin & Morrison, 1963); (2) teachers believe that the materials embody scientific truth (Barton & Wilder, 1964); and (3) teachers think that they are fulfilling administrative expectations when they use these materials (Chall, 1967). The strong influence of these beliefs regarding basal readers and standardized tests prevent many preservice teachers from "unshackling" themselves in order to exercise the power that is theirs and to become true professionals. With this basic assumption as a background, much of what I do in my reading class is designed to help students carefully examine their conceptions about reading instruction.

Individuals rarely change their ideas as a consequence of what they read or hear. It takes much effort on the part of an individual to unlearn a conception. Just giving students an explanation of how or why something is true or effective is not enough. The student must actively create meaning from that explanation. One needs to determine the views that students bring with them to a reading class. Critical conceptions regarding basal readers, standardized tests, and graded schools must be restructured.

To foster the restructuring of conceptions that many preservice teachers hold, I adopt a procedure suggested by McNeil (1988). He suggests that classroom practices that facilitate the restructuring of an individual's ideas generally call for (a) creating a situation that requires the student to invoke their conceptions; (b) encouraging students to state the conceptions clearly, thereby becoming aware of the elements in each conception; (c) encouraging confrontation, bringing out in discussion the difference between students' views and those of others or in many cases conflicting views of their own; (d) creating a conflict between exposed conceptions and some situations that the conception cannot explain; and (e) supporting students' search for resolution and accommodation.

Clearly there is contradiction at the heart of commercial reading materials and their value in helping children learn to read. Helping preservice teachers to restructure their conceptions through the above procedures can help them to unshackle themselves from the devoted use of and reliance on basal readers and standardized tests. Once this happens they can reflect on what works for them and to find their own way toward more valid instructional practices.

Concerning Skills and Knowledge

Once preservice teachers free themselves from conceptions concerning commercial reading materials, they can assume a more professional role—a role demanding that teachers make important decisions about how reading is to be taught in their classrooms. It is important for teachers to realize that *they* can determine that children learn to read and that *they* must select what *they* feel will be the most effective way to teach children. It is at this point that teachers, as Otto suggests, must come to tolerate ambiguity. In other words, rather than expecting someone to tell them the best way to teach reading, they must adopt a problem-solving attitude toward teaching children to read.

Assuming that this process of encouraging preservice teachers to adopt a problem-solving attitude is more important than any reading methods discussed, the avoidance of prescription is a major force in helping to develop this attitude. Teacher educators need, it seems to me, to provide teachers with information and *allow them* (not require, prescribe, or legislate) the opportunity to formulate the available choices for themselves, to debate them, and then to choose for themselves. To do this teachers need opportunities to find out what works best. While much time is devoted to information that is available on new theories and knowledge or new directions reading instruction should take, the real issue facing teacher educators is getting teachers to give these ideas a chance to surface in their classrooms.

At Utah State University we are fortunate to have an outstanding university laboratory school. During the time that preservice elementary teachers are enrolled in a second reading class, they also participate in a half-day practicum experience in the Edith Bowen Laboratory School each day. This provides an important opportunity for them to work in classrooms with expert teachers who work in a pragmatic way with children and who will allow preservice teachers to discover for themselves what is "best" and "most effective" in reading instruction. These master teachers are proficient enough to model for preservice teachers and to observe carefully, because it is a blend of demonstration, observation, and guided practice that is most likely to bring about change in teaching, a change to a problem solving approach in meeting children's reading needs.

Summary

I began this discussion by identifying two types of problems that I see as challenges to helping teachers exercise the power that is theirs—those that relate to values and beliefs and those that relate to skills and knowledge. I have attempted to describe in very general terms how each type might be approached separately. However, in most cases these problems are related and occur together. For example, inexperienced teachers who have difficulty applying sound principles of comprehension instruction during reading instruction may require extensive technical assistance in the classroom to deal with this skill deficiency. However, intensive classroom supervision and direction violate the informal assumption that teachers must learn to rely more on their own instincts and good judgment than on the dogma of some expert and teachers' norms of professionalism. While this presents an impressive challenge (Roadblocks and Detours if you will) to those of us who work with preservice teachers, it is a challenge that must be met if we are going to help teachers to assume their professional role.

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Caution! Constraints on Translating Research into Practice

Kay Camperell

(This paper is one of a series on the topic
"Changing Classroom Practices: Roadblocks and Detours")

This paper is one of three from a problems-court session on roadblocks and detours to changing instructional practice. The aim of the problems court was to identify situational factors that can be modified and thereby set the stage for changes in classroom practice. In the first paper, Wayne Otto (this volume) draws on work by Fraatz (1987) to suggest that classroom practices will not change unless teachers come to see themselves as the locus of power in classrooms and schools. Such a change, according to Otto, would free teachers to pursue innovation and develop tolerance for the uncertainty and ambiguity that underlies reading instruction. Bernie Hayes (this volume), in the second paper, addresses the need to change teacher training. He suggests that many teachers have misconceptions (e.g., "materials teach reading") about reading instruction which influence the skills and knowledge they acquire for teaching reading. One way to overcome common misconceptions, according to Bernie, is to embed teacher training in problem-solving contexts so that teachers are taught how to solve instructional problems and make instructional decisions on their own.

The aim of this paper is to address a third situational factor that can be altered to pave the way for affecting change in classroom practice. This factor concerns those of us who act as intermediaries between researchers and teachers and who attempt to affect change by translating research and theory into implications for classroom practice.

Three constraints are presented to remind us of lessons once learned but perhaps forgotten about drawing implications from research for classroom practice.

Theory and Research/Problems and Solutions

The first constraint concerns the point that theories do not explain and predict reading behavior nor do research results yield answers to instructional problems (Good, 1983). A wealth of theories about the processes of decoding and comprehending written material are available to reading educators today. These theories, however, cannot and do not explain or predict anything; we do. Our understanding of a given theory enables us, the users of the theory, to explain and predict reading performance. Too often, however, theories are presented as inviolable truths that should dictate how teachers are supposed to think about reading. This leads teachers into the trap of believing that theories can provide answers to concrete problems. The truth of the matter, as noted by Otto, is that either teachers solve instructional problems related to reading or they do not get solved. Thus, those of us who act as intermediaries, need to be cautious about claiming that nothing is as practical as a theory because theories are not practical. They are hypothetical explanations about relationships among variables that provide tools for reflective thought about instructional problems and practices.

The same holds for how we present implications of research for practice. Often, in the publish or perish press of our profession, we may mislead teachers into believing that research results yield answers to instructional problems across all instructional contexts. We forget the admonitions we received as graduate students that research findings *suggest* or *indicate* but nothing more. Research findings provide alternatives or new directions for solving problems, but, as noted by Brophy (1986), scientific data cannot be translated directly into policy decisions or instructional implications because these depend upon goals or outcomes desired by teachers and policy makers and "setting goal priorities involves values not science" (p.1074).

For example, Mannes and Kintsch (1987) found that different types of advance organizers affect the type of representations readers developed for instructional texts. One type of organizer induced readers to construct a situation-model representation which did not included many of the details presented in the text. Another type of organizer induced a text-based representation that was a veridical representation of information from the text. On both immediate and delayed recall tests, students who formed the veridical representation achieved higher scores than students who formed a situation-model representation. However, students who formed the situation-model representation achieved higher-scores on delayed problem-solving tests. These students were able to use the information they read whereas students in the other group could only remember it. These results suggest that different instructional techniques produce different learning outcomes. In this case, advance organizers that were inconsistent with the way ideas were organized in a text enhanced transfer and application of the ideas—a rather lofty instructional goal.

Teachers, however, must decide which goal, memory or problem-solving, is of most value for their students because instructional goals and instructional problems are not constant across students, teachers, subject areas, or schools (Good, 1983). Moreover, the insinuation that research findings can provide solutions to problems undermines teachers' confidence in themselves (e.g., researchers have the answers to educational problems) and diminishes their willingness to draw on personal experience and observations as a basis for decision making.

Modesty and Consideration of Consequence

The second constraint concerns the need for intermediaries to be more modest in their suggestions for classroom practice and more considerate of the consequences of their advice on students, teachers, and administrators (Cuban, 1988). At this point, little evidence exists to support the notion that any particular method or approach improves reading performance in general. As noted by Artley (1981), any reading program or instructional technique may help some students yet create or fail to respond to the difficulties of others. Moreover, we have little evidence that teaching any reading skill, strategy, or process does anything to improve reading comprehension in general (Pearson & Dole, 1987; Stahl & Miller, 1989), and it just could be that the most straight forward way to improve student comprehension is to enhance their background knowledge about school subjects. Nevertheless, reading education conferences, journals and methods texts are filled with "research based" practices (e.g., QAR's, SQ3R) for teaching reading that may have more to do with fads and tradition than research results. Use of the label "research-based" practices, implies that the techniques carry the "Good House Keeping Seal of Approval" (Clark, 1985, p.282) even though the available research findings actually yielded contradictory or marginal evidence about the effectiveness of the techniques. Thus, we need to be more modest when we draw implications for practice, qualifying them by the objectives and content domain of the supportive research and by the age and ability level of the subjects who participated in the studies.

In addition, we need to recognize that our advice and recommendations may influence policy-makers and administrators in unintended ways. Even though Otto (this volume) suggests that teachers are not really badgered by legislation, administrative edicts and the demands of special programs, I think they are. These factors, from my perspective, do indeed exert powerful influences on teaching practices. A case in point is the way some states have reduced the results of the Beginning Teacher Research to lists of behaviors by which teachers at all grade levels and in all subject areas should be evaluated (Good, 1983). This has even spread to teacher training programs as a way to evaluate student teachers despite Good's (1983) and Brophy's (1986) efforts to present their findings as tools for thinking and talking about teaching. The translators and users of this research, not the researchers themselves, have turned a set of limited findings into some normative standard of instruction. Hence, when we translate research into suggestions for practice, we need to do so with tenuous language so that research findings are presented as options and guidelines, not edicts about what is or what is not effective practice.

Changing Teacher Training

The third and final constraint concerns the fact that we need to avoid blind application of research by training teachers and administrators to be more informed consumers. Translating theory and research findings into recommendations for practice is difficult and often ignored in teacher-training programs which are often characterized by method madness. Nevertheless, drawing implications for practice requires people who know how to make informed decisions and who can analyze classroom contexts and instructional goals (Good, 1983), and teachers and administrators need to be trained in these processes so that they learn how to use theory and research intelligently.

Some teacher educators claim that a way to bridge the gap between research and practice is to highlight similarities between teaching and research. The task, apparently, is to demonstrate that teachers and researchers are concerned with the same subject matter (reading) and use similar methods to study and learn about that subject. According to this view, both teachers and researchers operate from theories or conceptions of reading which they set out to confirm or disconfirm.

The analogy drawn is between teaching practices and scientific research methods. Activities such as diagnosis, prescription, instruction, and evaluation are equated with hypothesis formation, the design of experiments, data collection, and hypothesis testing.

Bolster (1983) and Jenkins, Liberman, and Curtis (1978), however, suggest that this analogy is misleading and argue that the analogy of teacher as researcher causes communication breakdowns to occur because researchers and practitioners differ radically in how they perceive and interpret information about teaching and learning. The source of these differences lies in the interests, goals, experience and background knowledge of practitioners and researchers. Bolster (1983) and Jenkins, et al. (1978) claim these differences have to be addressed if we want practitioners to translate theory and research into school practices. This will involve (a) changing teachers' knowledge base and (b) teaching them strategies for processing information about theory and research so that they learn how these information sources can be used as a basis for deciding upon instructional action. Thus, Hayes' (this volume) suggestions for embedding teacher training in problem-solving contexts is a fruitful avenue to pursue as a way to train teachers to use theory and research as tools to analyze, understand, and make sense out of instructional events. The goal of changing teacher education, however, will be no easier to accomplish than the goal of changing classroom practice as long as we operate under the situational constraints of colleges and universities in which teacher education is conducted in artificial settings and publishing is more important than instruction.

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Developing a Tolerance for Ambiguity

Mary F. Heller

(This paper is one of a series on the topic
"Changing Class Practices: Roadblocks and Detours")

The process of change in education has often been likened to the mating of two elephants. There's lots of hollering and screaming that goes on at first, and then you have to wait almost two years before you see the end results. In the case of classroom change in the teaching of reading, the baby elephant is long overdue. So we wait for the birth, hoping it is not a mammoth or a mastodon of some kind that feeds on the fears of the very people who have the potential to change things, the classroom teachers themselves.

In my response to the panel's papers on obstacles to change and possible ways to overcome them, I would like to focus briefly on a concept brought out by Wayne Otto (1988) that I believe is central to the issue of making permanent change in the way reading (albeit everything) is taught in our schools. That is, the idea that classroom teachers must first develop a tolerance for ambiguity before they will be free to take risks that translate into positive change.

As a prelude to writing this response, I asked 21 teachers who happened to be enrolled in my graduate language arts class whether or not they had any real power in their classrooms to change things. The question caused a minor furor, as they shook their heads in amazement that I would even think of making such an inquiry. They were quick to inform me of their frustrations with central office mandates. They made clear to me that the central office makes all the decisions, that the central office usually yields to the wishes of the school board members who sometimes pay attention to parents but who always implement legislative mandates. "But why can't you just close your doors and teach the way you really want to teach," I asked naively with a smile on my face. They smiled back at me, checked for microphones hidden in the overhead ceiling fans, and said, "Because we're afraid."

The fear that these and other classroom teachers feel is rooted in the ambiguity of their situations. As we all know, the ambiguities of life in general make us uncomfortable. If an ambiguity cannot be resolved, then we may do one of two things: avoid the situation whenever possible, or resort to what I term the "default" mechanism that we have working for us in our unconscious. In other words, when presented with an ambiguous situation that does not make sense or seems un-resolvable, we rely on what we know best. We call to mind whatever it is in our background of experiences that makes us deal with the situation as comfortably as possibly. An extreme example of reliance on the default mechanism is the classroom reading teacher who teaches the way she/he was taught, whether the methods were good or bad. This is a phenomena often observed among student or first-year teachers who are struggling to survive the ambiguities.

Classroom teachers are especially vulnerable to ambiguous messages. On the one hand they are forced to administer state competency tests that are supposed to be a reflection of a child's strengths and weaknesses which are further defined and quantified by a grade level equivalency. They are told that the grade level equivalency is necessary to communicate with parents, that parents (and the school board) want to know the numbers and how their child stacks up against all others. Yet classroom teachers know that the tests don't really tell about the child's ability to read, and that most parents are far more intelligent than some administrator's give credit.

Many teachers are concerned enough to take graduate university courses in reading and language arts where they read the research that tells us that all those basal reader worksheets aren't really necessary to teach children how to read. But the central office mandates that every teacher use the basal series and in some cases every story be read and every worksheet be filled out. So they go back to their classrooms and use every single worksheet—in spite of the research, in spite of what they professor says about the historic lag between theory and practice—they don't change things in their own classrooms for fear of being viewed as not doing their job.

On the up side. There are indeed some teachers who feel they have the power to change things and are not afraid to take risks. A veteran first grade teacher in whose classroom I am presently conducting research told me what it takes to bring about change. She says,

> You (the classroom teacher) are never going to be criticized by doing things the traditional way, that is, using the basal reader, three reading groups, worksheets galore, no matter what the outcome may be on standardized tests. But if you change things around, try new ideas that go against the mainstream, traditional ways of teaching reading, then you are vulnerable to criticism, not only from the central office, but also from your peers. You have to show results. If you show good results, then you will never be criticized. But there's no guarantee. You have to be confident enough to admit your failures, if that's what happens, and try something else next time around. It takes a lot of courage to bring about change even in your own classroom.

The irony of the situation is that teachers who initiate change must demonstrate positive results beyond what you would even expect to get using traditional methods. At the same time they are not applauded for their risk-taking behavior. And this is extremely uncomfortable and unfair. It is what makes teachers avoid the change process altogether.

So what can be done to make teacher's confident enough to realize that they can wield some of the power to effect change both in and out of their classrooms? The preservice arena would seem to be logical training ground for developing a tolerance for ambiguity. We are very familiar with the ambiguous nature of teacher education program content. I lecture to my students that theory and research says this or that, and then I say, "But you probably won't see this done in actual practice when you're out there student teaching." And then they come back to me after practicum and say, "Yeah, you're right, we didn't see much of that being done." We talk about the poor teaching methods we all experienced as children. They nod their heads in agreement, vowing they will never teach the way they were taught. And when methods class is over, I watch them go into the real world of the classroom where they may or may not behave like the confident teachers they role-played during microteaching (Heller, 1988).

And then there's the in-service arena, which I believe may have the most potential for influencing change in the schools. Here we can report that theory and research say this and that. And then we can go on to ask, "Have you tried this, and does that work?" All of which is followed by meaningful dialogue about real-life situations. If the principal happens to be in the audience, then we can pick on him/her for a minute or two and ask him/her what he/she thinks about the issue of changing things in the reading classroom. And after we have made him/her feel as uncomfortable as possible, he/she will excuse himself/-herself to go to another meeting. Which is unfortunate because there is a good deal of research that describes the positive influence that a building principal can have on the overall reading programs (Fraatz, 1987). A supportive building-level administrator is without a doubt a key factor in promoting educational change.

So what's to be done to bring about the birth of a baby elephant, short of inducing labor? (Induced labor would be like mandated change, which everyone knows may or may not be good for all concerned.) I think that everyone would agree that genuine support is needed to bring about a smooth delivery. The delivery of support must take place at many levels, from the community, the university, the central office, and the legislature. Those of us in control of university-level support might be able to do something about changing the way preservice and inservice professional perceive themselves. I strongly agree with Otto's (1988) conclusion that teacher's need to start thinking of themselves as in control of their own classrooms. Perhaps it is indeed an oversimplification of one solution to an enormous problem, but if enough of us say it often enough, "You are the change makers," some of those teachers we prepare might start believing they have power and control over their situations. Furthermore, one way to actually help inservice professionals understand that they can change things is to show them how to get results through change. For example, classroom-based teacher initiated research can be a powerful tool to document how creative, innovative ways of teaching reading will often get the same results on standardized tests as the traditional methods.

Knowledge and successful experiences build confidence in any profession. Real professionals know what they're doing and how to go about getting the job done. Perhaps the bottom line is that teachers need to start thinking of themselves as real professionals who are not in a custodial situation where superiors take care of them and tell them what to do. It is only then that they will be free to take charge of ambiguous situations and turn them into positive experiences for all.

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Membership Information

The American Reading Forum:

The American Reading Forum is a nonprofit, professional organization composed of individuals who share an interest in the improvement of reading. While the American Reading Forum is an organization that facilitates the dissemination of ideas and research, it places highest priority on providing its members opportunities for a critical discussion of ideas, issues, research, and paradigms.

The American Reading Forum's Goals:

The American Reading Forum declares the following to be its reason for existence and the guidelines for its activities:

- To provide a true forum for reading education where new research can be generated, research in progress can be refined, completed research can be reported, and reported research can be evaluated.
- To provide for the translation of reading research, theory, and philosophical deliberations into sound practice, but with no research, discussion, or contemplation to be discarded because its implementation is not immediately apparent.
- To conduct a conference at which newly trained scholars and scholars in training can get to know and get assistance from established and distinguished scholars in the field, through a mutual exchange of ideas.
- To provide a yearbook through which scholars of all levels can share viewpoints, resources, and expertise.
- To ensure that in the field of reading no idea is too bold or new to be given a hearing, and none too old to be given reconsideration.

The American Reading Forum's Meeting:

To achieve its goals, ARF sponsors a meeting each year during early December. The program consists of the common conference session formats (e.g., paper sessions, major addresses, and symposia), as well as alternative formats to those generally employed by organizations in the field of reading. To enhance the opportunity for participants' interaction, the America Reading Forum encourages a variety of formats for its sessions. A "Topical Issues Forum," a "Continuous Dialogue Session," and "Mentorships Sessions" are a few of the formats that ARF considers as ways to allow issues and topics to be discussed in depth by those who attend the annual meeting.

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